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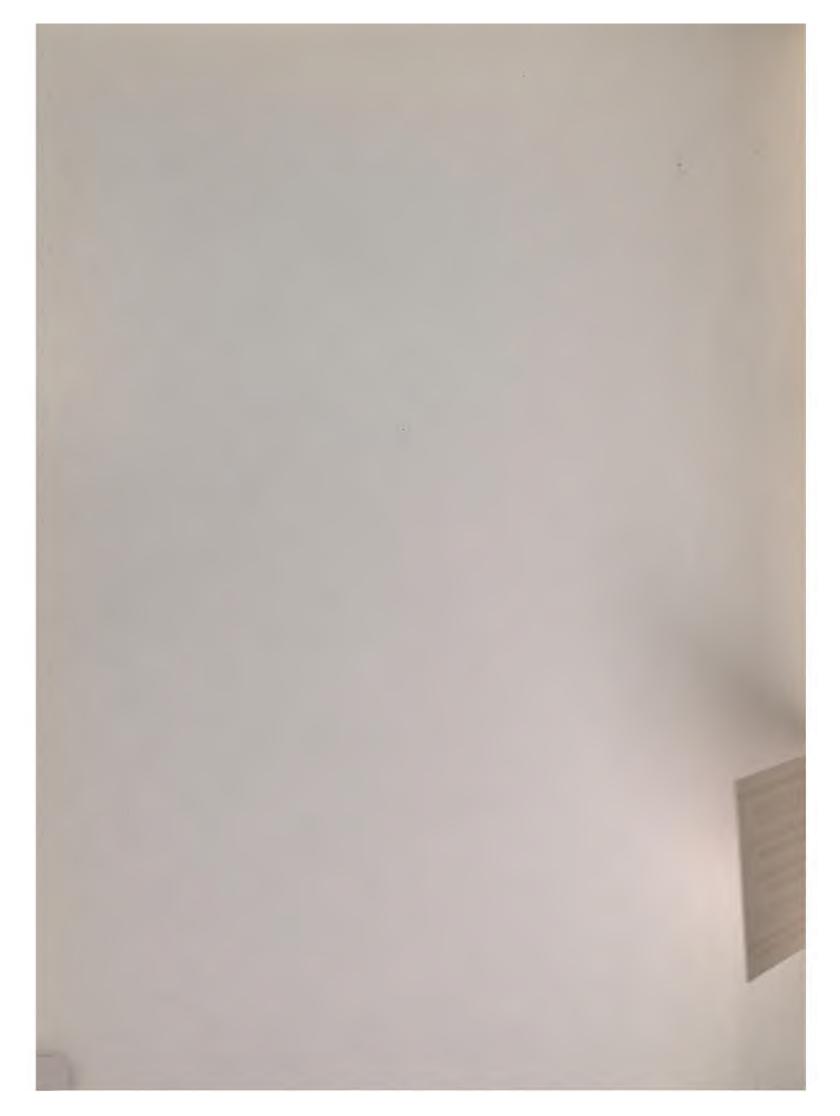
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DEPARTMENT OF THE INTERIOR, CENSUS OFFICE.

ROBERT P. PORTER,
Superintendent.
Appointed April 20, 1889; resigned July 31, 1893.

CARROLL D. WRIGHT,
Commissioner of Labor in charge.
Appointed October 5, 1893.

REPORT

ON

TRANSPORTATION BUSINESS

IN

THE UNITED STATES

AT THE

ELEVENTH CENSUS: 1890.

PART II.-TRANSPORTATION BY WATER.

HENRY C. ADAMS,

SPECIAL AGENT



WASHINGTON, D. C.:
GOVERNMENT PRINTING OFFICE.
1894.



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LETTER OF TRANSMITTAL.

DEPARTMENT OF THE INTERIOR, CENSUS OFFICE,

Washington, D. C., October 24, 1894.

SIR:

I have the honor to transmit herewith the text and statistical tables of Part II of the Report on Transportation for the Eleventh Census, pertaining to waterways, together with the statistics relating to express companies, bound for convenience in the same volume.

The subdivisions of the volume are as follows:

Atlantic coast and Gulf of Mexico.

Pacific coast.

Great Lakes.

Rivers of the Mississippi valley.

Canals and canalized rivers.

Express companies.

The work of tabulation has been done by Mr. Thomas J. Vivian, under the direction of Mr. Henry C. Adams (statistician of the Interstate Commerce Commission), special agent of the Census in charge of transportation.

I am, very respectfully, your obedient servant,

CARROLL D. WRIGHT,

Commissioner of Labor in charge.

Hon. Hoke Smith,

Secretary of the Interior.

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INTRODUCTION.

The statistics of the accompanying report on transportation are grouped under the following divisions:

- 1. Atlantic coast and Gulf of Mexico.
- 2. Pacific coast.
- 3. Great Lakes.
- 4. Rivers of the Mississippi valley.
- 5. Canals and canalized rivers.

Following these divisions of water transportation, the statistics of express companies for both land and water are given.

The totals of the five divisions represent the returns for the United States as made to the Census Office. The year of report is that ending December 31, 1889, that period having been selected in accord with the provision for using the fiscal year of reporting returns ending nearest June 1, 1890, because operations on rivers, lakes, and canals are bounded to such an extent by the opening and closing of navigation, and because most of the large shipping concerns on the coasts follow the calendar rather than the fiscal year in their accounts.

Tabulations are compiled as totals for the United States on the following subjects:

Equipment—number, gross tonnage, and commercial value of all craft.

Traffic operations—amount of freight moved and number of passengers carried by all craft.

Financial accounts—gross earnings, expenses, and net earnings of all craft.

Comparative statistics—corresponding data for the Tenth and the Eleventh Censuses.

The totals for the five divisions and for the United States are given in Tables 1 to 8, following. Table 9 contains by divisions the totals of the sums appropriated by Congress for the maintenance and improvement of waterways.

The report made by the Tenth Census having been confined to the operations of steamers, the statistics that can be used for comparison between the Tenth and the Eleventh Censuses are limited.

By the term "all craft" is meant all steamers, sailing vessels, and unrigged craft of over 5 tons burden, whether registered in the customs districts or owned without registration, the latter being mostly unrigged craft.

By the term "unrigged craft" is meant all vessels having no motive power of their own.

The report for the Pacific coast does not include returns for Alaska.

The report for the Great Lakes includes the returns from Lake Champlain for 1889. In the comparative tables Lake Champlain is not included, as the Tenth Census did not collect the data in question.

Returns for the Red River of the North, for convenience, are included in the report for the rivers of the Mississippi valley.

TABLE 1.—NUMBER, TONNAGE, AND VALUATION OF ALL STEAMERS, SAILING VESSELS, AND UNRIGGED CRAFT OF OVER 5 TONS BURDEN, REGISTERED OR OWNED IN THE UNITED STATES DECEMBER 31, 1889.

	TOTAL OF ALL CRAFT. STEAMERS.			1	SAILING VE	SELS.	UNRIGGED CRAFT.					
DIVISIONS.	Num- ber of vessels.	Gross tonnage.	Commercial valuation.	Num- ber of vessels.	Gross tonnage.	Commercial valuation.	Num- ber of vessels.	Gross tonnage.	Commercial valuation.	Num- ber of vessels	Gross tonuage.	Commercial valuation.
The United States.	32, 059	8, 603, 489	\$220, 774, 250	6, 205	1, 833, 062	\$141, 266, 570	8, 917	1, 797, 071	\$57, 275, 727	16, 937	4, 973, 356	\$22, 231, 953
Atlantic coast and Gulf of Mexico.	13, 466	2, 862, 630	127, 676, 487	2, 933	837, 162	73, 554, 540	7, 108	1, 401, 985	46, 284, 507	8, 425	623, 483	7, 837, 440
Pacific coast	1,842	441, 939	23, 067, 370	531	170, 503	15, 526, 455	822	208, 080	6, 715, 570	489	63, 356	825, 345
Great L: kes	2, 784	926, 355	48, 941, 474	1, 489	599, 949	41, 193, 324	987	187, 006	4, 275, 650	308	139, 400	3, 472, 500
Rivers of the Missis- sippi valley.	7, 453	3, 393, 380	15, 335, 005	1, 114	210, 772	10, 539, 251	····			6, 339	3, 182, 608	4, 795, 754
Canals and canalized rivers.	6, 514	979, 185	5, 753, 914	138	14, 676	453, 000		 	! 	6, 376	964, 509	5, 300, 914

TABLE 9.—NUMBER, AVERAGE GROSS TONNAGE, AND AVERAGE COMMERCIAL VALUATION PER VESSEL AND PER GROSS TON OF ALL CRAFT ON DECEMBER 31, 1889.

	TOTAL OF ALL CRAFT.			STEAMERS.				SAILING VESSELS.				UNRIGGED CRAFT.				
DI VIS IONS.	Num- ber of vessels.	Average gross tounage per vessel.	valua-	Average commercial valuation per ton.	vessels.	Average gross tonnage per vessel.	varua-	valua- tion per	vessels.	Average gross tonnage per vessel.	valua-	Average commercial valuation per ton.	Num- ber of vessels.		A STI ITST.	Average commercial valuation per ton.
The United States	32, 059	268	\$6 , 886	\$25. 66	6, 205	295	\$22, 767	\$77.07	8, 917	202	\$6,423	\$31. 87	16, 937	294	\$1,313	81.47
Atlantic coast and Gulf of Mexico.	13, 466	213	9, 481	44.60	2, 933	285	25, 078	87. 86	7, 108	197	6, 512	33. 01	3, 425	182	2, 268	12. 57
Pacific coast	1,842	240	12, 523	52. 20	531	321	29, 240	91.06	822	253	8, 170	32. 27	489	130	1,688	13. 03
Great Lakes	2,784	333	17, 580	52. 83	1, 489	403	27, 665	68. 66	987	189	4, 332	22.86	308	453	11, 274	24. 91
Rivers of Mississippi valley.	7, 453	455	2, 058	4.52	1, 114	189	9, 461	50.00		'	·,•••••	· • • • • • • • • • • • • • • • • • • •	6, 339	502	737	1. 51
Canals and canalised rivers	6, 514	150	883	5. 88	138	106	3, 283	30. 87	! 				6, 376	151	831	5. 50

TABLE 3.—TONS OF FREIGHT MOVED AND NUMBER OF PASSENGERS CARRIED BY THE OPERATING STEAMERS, SAILING VESSELS, AND UNRIGGED CRAFT, EXCLUSIVE OF RAILROAD FERRIES, DURING THE YEAR ENDING DECEMBER 31, 1889.

		•			
DIVISIONS.	Total.	Steamers.	Sailing vessels.	Unrigged craft.	Passengers.
The United States	182, 848, 402				109, 857, 143
Atlantic coast and Gulf of Mexico	80. 695, 665	28, 791, 438	39, 801. 533	12, 102, 694	a152, 742, 927
Pacific coast	8, 818, 363	<i>b</i> 5, 741, 940	2, 761, 826	314, 597	c4, 019, 329
Great Lakes	d53, 424. 432				2, 235, 993
Rivers of the Mississippi valley	29, 405, 046	10, 345, 504		19, 050, 542	10, 858, 894
Canale and canalized rivers	10, 504, 896			. 10, 504, 896	

a Seventeen million four hundred and eighty-two thousand five hundred and thirty-one ferry passengers carried on railroad tickets not included in above figures.

TABLE 4.—GROSS EARNINGS, EXPENSES, AND NET EARNINGS OF ALL OPERATING CRAFT DURING THE YEAR ENDING DECEMBER 31, 1889.

DIVINORS./ '	Gross earnings.	Ехрепяев.	Net earnings.
The United States.	\$166, 838, 776	\$130, 257, 970	\$36, 580, 806
Atlantic coast and Gulf of Mexico	90, 147, 632	70, 226, 792	19, 920, 840
Pacific coast	20, 628, 316	17, 274, 809	8, 853, 507
Great Lakes	35, 636, 163	28, 033, 651	7, 602, 512
Rivers of the Mississippi valley	16, 337, 533	12, 600, 342	3, 737, 191
Canals and canalized rivers.	4, 089, 132	2, 122, 376	1, 966, 756

TABLE 5.—TOTAL NUMBER OF COMMON SEAMEN EMPLOYED AND THE AVERAGE MONTHLY WAGES PAID TO EACH, AND NUMBER OF EMPLOYES MAKING ORDINARY CREWS AND THE TOTAL WAGES PAID THEM DURING THE YEAR ENDING DECEMBER 31, 1889.

DIVISIONS.	Common seamen employed.	Average wages paid per month to common seamen.	Number making ordinary crews.	Total wages paid during year to all employés.
The United States.	25, 848	\$26, 43	114, 706	\$41,729,842
Atlantic coast and Gulf of Mexico	17, 418	21.38	63, 625	22, 123, 099
Pacific coast	4, 302	38.36	12, 181	6, 127, 451
Great Lakes	4, 128	35. 30	22, 934	8, 140, 430
Rivers of the Mississippi valley		!!	15, 996	5, 338, 863
Canals and canalized rivers (a)				

b Two million four hundred and thirty-one thousand five hundred and sixty-four tons of railroad ferry freight not included in above figures.

e Eleven million six hundred and fifty-two thousand seven hundred and sixty four ferry passengers carried on railroad tickets not included in above figures.

d No segregated report made of freight movement by classes of vessels.

TABLE 6.—COMPARATIVE STATISTICS—NUMBER, GROSS TONNAGE, AND COMMERCIAL VALUATION OF ALL STEAMERS IN 1880 AND 1889.

DIVISIONS.	Yеата.	Number of steamers.	Gross tonnage of steamers.	Commercial valuation of steamers.
The United States	1880	4, 659	1, 185, 074	\$77, 800, 525
	1889	6, 045	1, 814, 250	140, 489, 070
Atlantic coast and Gulf of Mexico	1880	2. 195	613, 986	45, 394, 700
•	1889	2, 933	837, 162	73, 554, 540
Pacific coast	1880	319	97, 005	6, 477 500
	1889	531	170, 503	15, 526, 455
Great Lakes (exclusive of Lake Champlain)	1880	947	222, 290	13, 918, 925
	1889	1, 467	595 813	40, 868, 824
Rivers of the Mississippi valley	1380	1, 198	251, 793	12, 009, 400
	1889	1, 114	210, 772	10, 539, 251

TABLE 7.—COMPARATIVE STATISTICS—GROSS EARNINGS OF ALL STEAMERS OPERATING IN 1880 AND 1889, TOGETHER WITH THE AMOUNT PAID IN WAGES DURING THOSE YEARS.

DIVISIONS.	Years.	Gross earnings of steamers.	Paid in wages on steamers.	
The United States	. 1880	\$83, 222, 936	\$25, 191, 515	
	1889	102, 527, 042	26, 056, 988	
Atlantic coast and Gulf of Mexico	1880	44, 430, 765	12, 964, 874	
·	1889	48, 003, 020	11, 239, 169	
Pacific coast	. 1880	6, 362, 770	1, 953, 451	
	1889	13, 237. 222	3, 682, 062	
Great Lakes (exclusive of Lake Champlain)	. 1880	12, 136, 228	3, 293, 964	
	1889	24, 949, 267	5, 796, 895	
Rivers of the Mississippi valley	. 1880	20, 293, 173	6, 979, 226	
	1889	16, 337, 533	5, 338, 802	

TABLE 8.—COMPARATIVE STATISTICS—NUMBER OF EMPLOYES CONSTITUTING THE ORDINARY CREWS OF ALL STEAMERS OPERATING IN 1880 AND 1889, WITH WAGES PAID, AVERAGES OF ANNUAL PAY, AND DECREASE OR INCREASE PER EMPLOYE.

DIVISIONS.	Years.	Number making ordinary crews of steamers.	Total wages paid during year on steamers.	Average annual wages paid per steamer employé.	Average annual in- crease in wages per steamer employé.	Average annual de- crease in wages per steamer employé
The United States	1880	60. 677	\$25, 191, 515	\$415.17		
	1489	63, 738	26, 056, 988	408. 81		\$6.36
Atlantic coast and Gulf of Mexico	1880	24, 910	12, 964, 874	520. 47		
	1889	25, 653	11, 239, 169	438. 12		82. 35
Pacific coast	1880	3, 008	1, 953, 451	649. 42	' '	
	1880	6, 818	3, 682, 062	540.05		109. 37
Great Lakes (exclusive of Lake Champlain)	1880	9, 143	3, 293, 964	360. 27		!
·	1880	15, 271	5, 796, 895	379, CO	\$19.33	
Rivers of the Mississippi valley	1880	23, 616	6, 979, 226	295. 53		·
	1889	15, 996	5. 338. 862	333.76	38. 23	

TABLE 9.—SUMS APPROPRIATED BY CONGRESS FOR SURVEY, IMPROVEMENT, AND MAINTENANCE OF WATERWAYS AND HARBORS BY PERIODS FROM THE EARLIEST DATE OF APPROPRIATION TO 1890, INCLUSIVE.

DIVISIONS.	Date of earliest appropria- tions.	Total appro- priations up to date.	Appropriations up to and including 1879.	Appropriations from 1880 to 1889, inclusive.	Appropriations by act of Congress, September 19,1890.
The United States		\$208, 411, 274	\$92 , 406, 052	\$ 91, 434 , 327	\$24, 570, 895
Atlantic coast and Gulf of Mexico	1821	79, 582, 684	37, 480, 428	33, 293, 406	8, 808, 850
Pacific coast	1852	0, 934, 800	2, 315, 000	5, 527, 200	2, 122, 600
Great Lakes	1823	42, 036, 327	24, 409, 917	13, 323, 165	4, 303, 245
Rivers of the Mississippi valley	18:9	76, 827, 463	28, 200, 707	39, 290, 556	9, 336, 200
Canals and canalized rivers (a)			¹		

a The appropriations for canals and canalized rivers are included in the reports for these localities (coasts, lakes, or rivers) in which they are situated.

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TRANSPORTATION ON THE ATLANTIC COAST AND GULF OF MEXICO.

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TRANSPORTATION ON THE ATLANTIC COAST AND GULF OF MEXICO.

BY THOMAS J. VIVIAN.

The statistics given in the present report are those concerning transportation on water by craft owned and registered in the seaports of the Atlantic coast and Gulf of Mexico and the ports situated on the navigable rivers emptying into these bodies of water, except the Mississippi river, whose traffic, with that of its affluents, is reported separately, the only portion of the Mississippi river traffic embraced in this report being the ocean trade to and from New Orleans.

For the presentation of these statistics 39 tables have been prepared, their respective numbers and titles being as follows:

PLAN OF THE TABLES.

Equipment, occupation, and construction:	Comparative statistics:
Table 1.—Equipment of fleets in general.	Table 24.—Steamers in 1880 and 1889.
Table 2.—Equipment of fleets by classified tonnage. Table 3.—Equipment of fleets by classified occupations.	Table 25.—Gross earnings and wages of steamers in 18*4) and 1889.
Table 4.—Ownership by classes.	Table 26.—Steamers' crews and wages in 1880 and 1889.
Table 5.—Ownership by localities.	Table 27.—Steamer truffic in 1880 and 1889.
Table 6.—Construction by classes.	Table 28.—Fleets for the 10 years 1880-1889.
Table 7.—Construction by localities.	Table 29.—Aggregates and averages for the 10 years 1880–1889
Traffic operations:	(all vessels).
Table 8.—Traffic in general.	Table 30.—Aggregates and averages for the 10 years 1880-1889
Table 9.—Freight traffic by commodities.	(steamers).
Table 10.—Interdistrict movement, freight, and mileage.	Table 31.—Aggregates and averages for the 10 years 1880-1889
Earnings and expenses:	(sailing vessels).
Table 11.—Financial account in general.	Table 32.—Aggregates and averages for the 10 years 1880-1889
Table 12.—Running and shore expenses.	(unrigged craft).
Table 13.—Employés and wages by coast totals.	Table 33.—Tonnage fluctuations for the 10 years 1880-1889 (all
Table 14.—Employés and wages in detail.	vessels).
General operations by classes:	Table 34.—Tonnage fluctuations for the 10 years 1880-1889
Table 15.—Passenger and freight vessels.	(steamers).
Table 16.—Ferryboats.	Table 35.—Tonnage fluctuations for the 10 years 1880–1889 (sail-
Table 17.—Towing boats.	ing vessels).
Table 18.—Yachts.	Table 36.—Tonnage fluctuations for the 10 years 1880-1889 (un-
Table 19.—Harbor craft.	rigged craft).
Table 20.—Miscellaneous craft.	Table 37.—Shipbuilding for the 10 years 1880-1889 (all vessels).
Table 21.—No traffic report.	Table 38.—Shipbuilding for the 10 years 1880-1889 (steamers).
Table 22.—Summary.	Congressional appropriations:
Fuel account:	Table 39.—Appropriations for the Atlantic coast and Gulf of
Table 23.—Amount and value of coal and wood used.	Mexico, by localities.

LOCALITIES OF REGISTRATION, EQUIPMENT, AND TRAFFIC.

For convenience the ports whose fleets are reported have been grouped, numbered, and named according to the plan on the following page.

NAMES, PORTS, AND BOUNDARY LINES OF THE EQUIPMENT AND TRAFFIC DISTRICTS IN WHICH THE FLOATING CRAFT OF THE ATLANTIC COAST AND GULF OF MEXICO ARE REGISTERED.

Number of dis- trict.	Name of district.	Ports.	Boundary line.
1	Portland	Eastport, Lubeck, Machias, Calais, Franklin, Castine, Buckport, Sedgwick, Mount Desert Ferry, Deer Isle, Southwest Harbor Sullivan, Ellsworth, Belfast, Lincolnville, Searsport, Bangor, St. George, Thomaston, Rockland, North Haven, Camden, Rockport, Boothbay, Wiscasset, Waldoboro, Damariscotta, Bath, Portland, York, Kennebunk, and Saco, Me. Portsmouth, N. H.	Maine and New Hampshire.
2	Boston	Salem. Marblehead, Newburyport, Gloucester, Boston. Plymouth, Duxbury, Scituate. Falmouth, Provincetown, Dennis, West Dennis. South Dennis, Chatham, Wellfleet, Barnstable, Hyannis, Edgartown. Nantucket, Fall River, and New Bedford, Mass. Bristol, Newport. and Providence, R. I.	Massachusetts and Rhode Island.
3	New York	New London, Stonington, New Haven, Bridgeport, and Hartford, Conn. Patchogue, New York, Cold Spring Harbor, Albany, Port Jefferson, Greenport, and Sag Harbor, N. Y. Newark and Perth Amboy, N. J.	Rhode Island line to and including Cape May, N. J.
4	Philadelphia	Tuckerton, Somers Point, Bridgeton, Camden, Burlington, and Trenton, N. J. Philadelphia, Pa. Wilmington, Milford, Seaford, and New Castle, Del. Chincoteague, Va.	Cape May, N. J., to Cape Charles, Va.
5	Bultimore	Baltimore, Crisfield, and Annapolis, Md. Georgetown, D. C. Onancock, Cape Charles, and Alexandria, Va.	Including Cape Charles, Va., to and including Potomac river.
6	Norfolk	Norfolk, Newport News, Petersburg, Richmond, and Tappahannock. Va. Edenton, Newbern. Beaufort, and Wilmington, N. C.	Potomac river to route line of North Carolina.
7	Savannah	Georgetown, Charleston, and Beaufort, S. C. Savannah, Brunswick, and St. Mary, Ga. Fernandina, Jacksonville, St. Augustine, and Key West, Fla.	South Carolina to and including Key West, Fla.
8	Mobile	Tampa, Cedar Keys. Apalachicola, and Pensacola, Fla. Mobile, Ala. Shieldsboro, Miss	Key West, Fla., to Louisians.
9	New Orleans	New Orleans, Brashear, and Lake Charles, La	Louisiana.
10	Galveston	Galveston, Corpus Christi, Brownsville, and Eagle Pass, Tex.	Texas.
11	Pacific coast	All seaports on the United States Pacific coast.	
12	Foreign	The ports of call and trading points in all foreign countries.	

To the first 10 districts the statistics of number, tonnage, valuation, construction, ownership, occupation, employés, wages, earnings, expenses, and passengers and freight carried have been assigned, while the interdistrict statistics of commodities and mileage have been assigned to all 12 districts.

EQUIPMENT AND OCCUPATION.

The 7 tables, 1 to 7, inclusive, present the main facts concerning the number, carrying capacity, valuation, and occupation or pursuit of the entire floating equipment of the Atlantic coast and Gulf of Mexico, with the exception of craft engaged as fishing vessels. The minimum tonnage limit of the steamers, sailing vessels, and unrigged craft for registry is 5 tons. The unregistered part of the fleet is unrigged, whose registration was not compulsory after 1882, except for those barges engaged in the transportation of bonded goods.

The steamers are classed as passenger and freight, towing, ferry, yachts, harbor, miscellaneous, and no traffic report. The sailing vessels are classed as freight, harbor, yachts, miscellaneous, and no traffic report. The unrigged embrace all craft engaged in the transportation of freight and having no motive power of their own. The passenger and freight vessels, both steam and sail, are those engaged exclusively in either passenger or freight traffic or in combined passenger and freight traffic, but does not include ferryboats, which are treated as a separate class. The towing steamers are those furnishing motive power for floats and barges, or for the moving of vessels without and within the harbor. The yachts include all pleasure craft above the registration limit. The harbor craft placed among the steamers include such floating channel property as dredges, wreckers, iceboats, pile-drivers, and lighters used in the loading or unloading of large vessels, already reported as freighters. The harbor craft placed among the sailing vessels include water boats, pilot boats, and lighters engaged in the loading or unloading of large vessels, already reported as freighters. The miscellaneous, both sail and steam, are such craft as were engaged in more than one class of occupation during the year. The craft grouped under the head of "No traffic report" are the steamers and sailing vessels which were not operated during the year, or which failed to make the required report of operations. In Table 1 the number, tonnage, and valuation of all craft are accredited to each of the various ports comprising the districts; while in Table 2 the steamers and sailing vessels

of the fleet are classified according to tonnage, the classifications ranging from "5 to 50 tons" up to "2,500 tons and over". In Table 3 the entire fleet is classified according to occupation and allotted to the various districts. The figures given in this table and Table 1 show that the total fleet, with the exception of craft employed as fishing vessels, of the Atlantic coast and Gulf of Mexico numbered 13,466 craft, having a tonnage of 2,862,630 tons, and a valuation of \$127,676,487. The tonnage figures employed represent gross tonnage, and the valuation is the estimated commercial valuation reported in the schedules as having been set by the owners of the vessels on the last day of 1889.

TABLE A.—SUMMARY SHOWING THE NUMBER, TONNAGE, AND VALUATION OF THE PRINCIPAL CLASSES OF VESSELS REGISTERED AND OWNED ON THE ATLANTIC COAST AND GULF OF MEXICO IN 1889.

CLASSES OF VESSELS.	Number	Tonnage.	Valuation.	
Total	13, 466	2, 862, 630	\$127, 676, 487	
Steamers	2, 933	837, 162	73, 554, 540	
Passenger and freight	810	487, 939	36, 989, 280	
Towing	1, 095	61, 359	10, 203, 330	
Ferry	214	98, 174	7, 907, 700	
Yachts	170	11, 328	3, 520, 610	
Harbor	94	13, 843	1, 446, 150	
Miscellaneous	153	69, 127	5, 451, 570	
No traffic report	397	95, 392	8, 035, 900	
Sailing vessels	7, 108	1, 401, 985	46, 284, 507	
Freight	5, 229	1, 260, 362	38, 777, 627	
Harbor	368	15, 849	1, 151, 540	
Yachts	628	14, 428	2, 681, 455	
Miscellaneous	52	2, 553	75, 360	
No traffic report	831	108, 793	3, 598, 525	
Unrigged craft	3, 425	623, 483	7, 837, 440	

Table 3 contains material from which have been derived the average tonnage, average commercial value per craft, and average value per ton of the entire fleet, and in the following summary these averages will be found for each class:

TABLE B.—SUMMARY SHOWING THE NUMBER, AVERAGE TONNAGE, AVERAGE VALUE PER VESSEL, AND AVERAGE VALUE PER TON OF THE PRINCIPAL CLASSES OF VESSELS OWNED ON THE ATLANTIC COAST AND GULF OF MEXICO IN 1889.

CLASSES OF VESSELS.	Number of vessels.	Average tonnage.	Average commercial value per craft.	Average value per ton	
Total	13, 466	213	\$9,481	\$14.60	
Steamers	2, 933	285	25, 078	87. 86	
Passenger and freight	810	602	45, 666	75. 81	
Towing	1,095	56	9, 318	166. 2	
Ferry	214	459	36, 952	80. 5	
Yachta	170	67	20, 700	310.79	
Harbor	94	147	15, 385	104. 4	
Miscellaneous	153	452	35, 631	78. 80	
No traffic report	397	240	20, 242	84. 24	
Sailing vessels	7, 108	197	6, 512	33. 0	
Freight	5. 229	241	7,416	30. 7	
Harbor	368	43	3, 129	72. 6	
Yachts	628	23	4, 270	185.8	
Miscellaneous	52	19	1,449	29. 53	
No traffic report	831	131	4, 330	33.0	
'nrigged craft	3, 425	182	2, 288	12.5	

It will be seen that the average value per ton is nearly in due inverse ratio to the average tonnage. Thus the towing steamers and steam yachts have the lowest average tonnage and the highest value per ton, while the passenger and freight steamers have the highest average tonnage and the lowest average value per ton. The same ratio will be found in the sailing vessels, the yachts having the lowest average tonnage and the highest average

value per ton and the freight vessels having the highest tonnage and the lowest average value per ton. The rule does not apply, however, to the relative averages of the steamers and sailing vessels engaged in the same calling. In the case of the passenger and freight steamers and freight sailing vessels, for instance, the steamers have the higher average tonnage and the higher average value per ton, the larger value of the steamers being due to the presence of machinery and more expensive material of construction.

OWNERSHIP AND CONSTRUCTION.

Tables 4 to 7, inclusive, deal with the facts of the ownership and construction of the various classes of steamers and sailing vessels, no classification of either ownership or construction having been made for the unrigged. The statistics of ownership are given for only 9,151 steamers and sailing vessels.

Table 4, entitled "Ownership by classes", and Table 5, entitled "Ownership by localities", are respectively summarized in the two parts of the subjoined statement:

TABLE C.—SUMMARY SHOWING THE NUMBER, TONNAGE, AND VALUE FOR EACH CLASS OF VESSELS AND FOR EACH DISTRICT OF THE ATLANTIC COAST AND GULF OF MEXICO, GROUPED UNDER THE HEADS OF INDIVIDUAL, JOINT STOCK, AND CORPORATE OWNERSHIP.

				BY CLASS	SES.						
		NUMBER AND TONNAGE BY OWNERSHIP.					VALU	VALUATION BY OWNERSHIP.			
CLASSES OF VESSELS AND DISTRICTS.	Total number of vessels.	Indi	vidual.	Join	t stock.	Cor	porate.	Individual.	Joint stock.	Company	
į	: :	Number.	Tonnage.	Number.	Tonnage.	Number.	Tonnage.	I Dairvidual.	Johnt Buck.	Corporate.	
Total	9, 151	1	1, 404, 883	215	75, 827	1, 032	580, 613	\$60, 509, 762	\$5, 250, 750	\$40, 768, 790	
Steamers	2, 626	1, 548	156, 974	148	46, 488	930	555, 115	18, 905, 530	4, 255, 700	43, 284, 910	
Passenger and freight	810	324	62, 510	82	38, 143	404	387, 286	5, 371, 470	3, 284, 000	28, 333, 810	
Towing	1,095	796	35, 818	38	2, 795	261	22, 746	6. 154, 300	384, 000	3, 665, 630	
Ferry	214	63	26, 945	13	3, 806	138	67, 423	2, 315, 970	375, 000	5, 216, 730	
Yachts	170	160	10, 840	1	6	9	482	3, 390, 920	1, 200	128, 490	
Harbor	94	51	4,650	8	1, 121	35	8, 072	456, 650	117, 000	872, 500	
Miscellaneous	153	82	9, 239	1	214	70	59, 674	730, 220	45, 000	4, 676, 350	
No traffic report	90	72	6, 972	5	403	13	9, 432	486, 000	49, 500	392, 000	
Sailing vessels	6, 525	6, 356	1, 247, 909	67	29, 330	102	25, 498	41, 604, 232	995, 050	483, 880	
Freight	5, 229	5, 124	1, 209, 053	48	28, 181	57	23, 128	37, 423, 227	937, 350	417, 050	
Harbor	368	332	14, 176	15	884	21	789	1, 072, 790	47, 300	31, 450	
Yachts	628	626	14, 406	1	10	, 1	12	2, 678, 955	500	2,000	
Miscellaneous	52	28	941	1	, 43	23	1,569	37, 980	4,000	33, 380	
No traffic report	248	246	9, 333	ļ: 2	221	ĺ	'	391, 280	5, 900		

Harbor	368	332	14, 176	15	884	21	789	1, 072, 790	47, 300	31, 450
Yachts	62 8	626	14, 406	1	10	. 1	12	2, 678, 955	500	2,000
Miscellaneous	52	28	941	1 1	43	23	1,569	37, 980	4,000	33, 38
No traffic report	248	246	9, 333	2	221	 	·	3 91, 2 80	5, 900	
-	•		В	Y DISTRIC	JTS.					
Total	9, 151	7, 904	1, 404, 883	215	75, 827	1, 032	580, 613	60, 509, 762	5, 250, 750	43, 768, 79
Steamers	2, 626	1, 548	156, 974	148	46, 488	930	555, 115	18, 905, 530	4, 255, 700	43, 281, 91
Portland	122	55	3, 006	19	1, 815	48	20, 665	336, 250	210, 500	1, 777, 50
Boston	233	106	9, 723	3	75	124	90, 572	1, 213, 150	13, 000	7, 041, 88
New York	1, 265	757	90,349	77	32, 897	431	272, 657	11, 128, 730	3, 228, 500	22, 729, 93
Philadelphia	302	161	12, 641	11	1, 319	130	67, 031	1, 665, 350	185, 200	5, 635 , 10
Baltimore	215	126	12, 577	. 15	5, 935	74	51, 557	2, 306, 800	290, 000	2, 537, 75
Norfolk	132	90	5, 597	7	1, 535	35	4, 856	497, 800	104, 500	386, 80
Savannah	163	119	9, 592	5	1, 953	39	20, 663	802, 400	67, 500	1, 645, 25
Mobile	106	81	8, 489	6	472	19	1, 210	618, 250	53, 500	129, 20
New Orleans	53	31	3, 614	4	410	18	24, 872	209, 800	58, 000	1, 287, 00
Galveston	35	22	1, 386	1	77	12	1, 032	127, 000	15, 000	114, 50
Sailing vessels	6, 525	6, 356	1, 247, 909	67	29, 339	102	25, 498	41, 604, 232	99 5, 050	483, 88
Portland	1, 591	1, 565	413, 312	22	18,718	4	571	12, 278, 167	687,600	17, 90
Boston	887	858	274,785	1		. 29	17, 667	8, 947, 405	· · · · · · · · · · · · · · · · · · ·	280, 20
New York	1, 893	1.823	355, 060	29	9, 249	41	3, 481	12, 946, 835	245, 950	90, 73
Philadelphia	659	641	139, 809	3	117	15	2, 473	4, 815, 730	8, 200	40, 50
Baltimore	486	484	38, 578	1	215	1 1	42	1, 382, 960	6, 000	
Norfolk	211	208	7. 037	1	64	2	409	297, 260	1,000	12, 50
Savannah.	257	256	7. 821	1	10	·	l	391, 800	500	
Mobile	200	185	5, 092		867	7	805	239, 310	43, 300	33, 75
New Orleans	187	186	3, 752	. 1	55	i	·	169, 460	900	
Galveston	154	150	2, 663	1 1	44	3	50	135, 305	T, 600	5, 30

TABLE E.—SUMMARY SHOWING THE NUMBER, TONNAGE, AND VALUATION FOR EACH CLASS OF VESSELS AND FOR EACH DISTRICT OF THE ATLANTIC COAST AND GULF OF MEXICO, GROUPED UNDER THE HEADS OF MATERIALS OF CONSTRUCTION—Continued.

BY DISTRICTS.

	NUMBER AND TONNAGE BY MATERIALS OF CONSTRUCTION. VALUATION BY MATERIALS OF CONSTRUCTION.									
districts.	Ŵ	ood.	Com	Composite. Iro		nd steel.		· · · · · · · · · · · · · · · · · · ·		
!	Number.	Tonnage.	Number.	Tonnage.	Number.	Tonnage.	Wood.	Composite.	Iron and stee	
Total	9, 477	1, 801, 088	90	24, 604	474	413, 455	\$80, 915, 897	\$1, 183, 120	\$37, 740, 03	
teamers	2, 448	427, 560	24	5, 365	461	404, 237	35, 991, 510	547, 800	37, 015, 23	
Portland	134	26, 408			1	510	2, 461, 150		. 50, 00	
Boston	248	68, 510			27	39, 780	4, 937, 930			
New York	1, 166	213, 279	12	2, 356	198	227, 236	19, 077, 330	308, 300	21, 587, 43	
Philadelphia	250	40, 622	3	988	102	49, 455	3, 640, 150	80,000	4, 872, 10	
Baltimore	172	33, 189	4	1, 311	53	37, 256	2, 323, 350	117, 500	2, 914, 20	
Norfolk	134	10, 168	4	240	16	3, 142	833, 600	27, 000	309,00	
Savannah	161	18, 278	1	470	27	18, 373	1, 405, 350	15,000	1, 538, 50	
Mobile	113	10, 291			13	1, 122	769, 250		.: 198, 50	
New Orleans	34	4, 260	; ;,		22	27, 147	294, 900		1, 417, 80	
Galveston	3 6	2, 555		· · · · · · · · · · · · · · · · · · ·	2	216	248, 500		32.50	
ailing vessels	7, 029	1, 373, 528	66	19, 239	13	9, 218	44, 924, 387	635, 320	724, 80	
Portland	1, 640	447, 704	37	11, 437	1	1,448	13, 519, 752	303, 670	55, 00	
Boston	969	311, 202	8	3, 618			9, 814, 825	132, 400		
New York	1, 999	396, 108	9	1, 237		5, 359	13, 737, 455	64, 050	530, 30	
Philadelphia	694	142, 425	. 8	2, 813	3	2, 411	4, 773, 500	125, 200	139, 50	
Baltimore	532	40, 461	1	71			1, 462, 060	4,000	1	
Norfolk	284	9, 966	2	41	·		411, 260	2,500		
Savannah	299	8, 432			· · · · · · · · · · · · · · · · · · ·	.	420, 925		.l	
Mobile	242	9, 649	j 1	22		 	425, 660	3, 590	1	
New Orleans	214	4, 247					194, 360		· · · · · · · · · · · · · · · · · · · ·	
Galveston	156	3, 331			1	<u> </u>	164, 590	1		

It will be seen from the preceding table that in vessels of the Atlantic coast and Gulf of Mexico wood still continues to be the principal material, even in steamers. Some of the reasons for this are indicated in the following table, which shows the relative average value per ton of vessels built of the materials under consideration:

TABLE F.—SUMMARY SHOWING AVERAGE TONNAGE AND AVERAGE VALUE PER TON OF THE VESSELS OF THE ATLANTIC COAST AND GULF OF MEXICO CONSTRUCTED OF WOOD, COMPOSITE, AND IRON AND STEEL.

CLASSES OF VESSELS.		МА	TERIALS OF	CONSTRUCT	ion.	
	Wood.		Comp	osite.	osite. Iron and	
	Average tonnage		Average tonnage.	Average value per ton.	Average tonnage.	Average value per ton.
Steamers and sailing vessels	190	\$44, 93	273	\$48.09	872	\$91.28
Stramers	175	84.18	224	102. 11	877	91. 57
Sailing vessels	195	32.71	292	33. 02	709	78. 63

This table shows that while the average value per ton of steamers built of wood is \$84.18, the average value of steamers built of iron and steel is \$91.57; and that while the average value per ton of the wooden sailing vessels is \$32.71, that of the iron and steel sailing vessels is \$78.63, or considerably more than twice as much per ton. The high-average value per ton of composite built steamers is due to the fact that in this class of construction there are included the extremely expensive yachts registered in the Atlantic ports. One of the features of this table of averages is, that it shows an increasing figure in the average tonnage of iron and steel vessels over those of composite build, which vessels, in their turn, are of a higher average tonnage than those built of wood; the figures being 190 tons as the average of wooden vessels, 273 tons as the average of composite vessels, and 872 tons as the average of iron and steel vessels.

TRAFFIC OPERATIONS.

Tables 8, 9, and 10, constituting the report on traffic operations, and Tables 11, 12, 13, and 14, constituting the report of earnings and expenses, deal only with the steamers classified as passenger and freight steamers, with the sailing vessels classified as freighters, and the unrigged, which were moved by the steamers.

In this connection it is to be observed that the reports by districts show all commercial transactions, including receipts and shipments, correctly for each district taken alone. When these districts are combined into a total, it will be evident that freight sent from one district to another will appear as a shipment in one case and as a receipt in the other; and when tables for districts transacting business with each other are added, this will duplicate the freight and the mileage involved.

This brings into the tables formed by adding all districts a duplication of 27,983,541 tons, representing freight which appears as shipments in one district and as receipts in another district, and the mileage is duplicated in a corresponding manner to the extent of 28,560,040 miles.

The following table exhibits the freight and the mileage covered in such a way as to show commodities and mileage, stripped of all duplications. This explanation applies to all the tables and text where freight traffic and mileage are under discussion in which districts have been combined.

TABLE G.—TONS OF FREIGHT MOVED AND MILES COVERED BY THE PASSENGER AND FREIGHT CARRYING VESSELS, EXCLUSIVE OF FERRYBOATS, OF THE ATLANTIC COAST AND GULF OF MEXICO.

1	COMMODITIES.								
DISTRICTS.	Total.	Coal.	Lumber.	Stone.	Ice.	Cement, brick, and lime.	All other commodities.	Miles cov ered.	
Total	52, 712, 124	14, 210, 581	6, 038, 278	1, 453. 953	2, 692, 873	3, 469, 990	24, 846, 449	- 44, 566, 298	
Portland.	3, 597, 829	10, 966	1, 072, 705	440, 020	1, 194, 122	344, 210	535, 806	5, 143, 854	
Boston	2, 532, 507	17, 897	85, 705	330, 306	115, 989	21, 890	1,960,720	3, 142, 024	
New York	27, 843, 398	9, 280, 639	487, 954	568, 588	1, 355, 373	2, 999, 868	13, 150, 976	16, 114, 461	
Philadelphia	4, 674, 715	1, 495, 740	1, 197, 953	17, 892	14, 261	36, 409	1, 912, 460	3, 938, 867	
Baltimore	3, 873, 633	1, 924, 458	77, 485	57, 90 8	4, 533	17, 363	1, 791, 886	4, 201,352	
Norfolk	3, 730, 782	1, 447, 934	664, 322	9, 291	2, 160	5, 920	1, 601, 155	3, 063, 280	
Savannah	4, 186, 745	2,498	1, 466, 779	13	2, 695	6, 007	2, 708, 753	5, 362, 458	
Mobile	919, 721	20, 825	535, 754	6. 741	3, 433	5, 320	347, 648	1, 879, 244	
New Orleans	901, 625	3,580	415, 128	1,974	299	12, 955	467, 689	821, 236	
Galveston	451, 169	6, 044	34, 493	21, 220	. 8	20, 048	369, 356	896, 522	

This table represents the actual commodities moved and the mileage covered by the vessels required to carry them, both as a total and by districts, and is made up as follows from the data exhibited in Table 10: each district is credited with the tonnage shipped from any port therein to another port in the same, with all freight shipped out of the district and with all freight shipped into the district from ports on the Pacific coast or from foreign ports. An additional tonnage, 233,083 tons, is credited to the district of New York, on account of freight carried by vessels belonging to that district, the freight being in transit between foreign ports.

From Table 8 it will be seen that the traffic of the Atlantic coast and Gulf of Mexico trading fleet amounted during the year of report to 80,695,665 tons of freight and 11,581,446 passengers. Of the freight, 28,791,438 tons were carried on steamers and 12,102,694 on unrigged craft towed by steamers, the remaining 39,801,533 tons being carried on sailing vessels.

DETAILS OF COMMODITIES.

An analysis of the 80,695,665 tons of freight carried by the passenger and freight carrying vessels of the Atlantic coast and Gulf of Mexico is given in Table 9. The commodities on which specific returns were secured are coal, lumber, stone, ice, cement, brick, and lime, the respective amounts being as follows:

Total	
Coal	10 887 697
Stone	1, 991, 848 4, 026, 499 4,149, 359

The other commodities make up an unspecified total of 35,864,394 tons.

INTERDISTRICT TRAFFIC.

The same gross amount of tons of freight of the specified commodities given in Table 9 is used in Table 10, which presents the interdistrict traffic. By the arrangement followed in the latter table there can be seen how much freight was brought into any one district from any other district, how much was taken out of it, and what was its destination. It will be seen, for example, that the shipments from New York to Portland amounted to 1,315,246 tons; from New York to Boston, 4,410,588 tons; from New York to Philadelphia, 163,005 tons; from New York to Baltimore, 100,583 tons; from New York to Norfolk, 422,329 tons; from New York to Savannah, 567,141 tons; from New York to Mobile, 17,553 tons; from New York to New Orleans, 12,653 tons; from New York to Galveston, 186,666 tons; from New York to the Pacific coast, 171,985 tons; from New York to foreign, 1,107,142 tons; that within the district there was an internal or local movement of 17,817,212 tons, and that from all other districts there were brought into the district of New York 6,421,107 tons, making the total trade of the New York district 32,713,210 tons. A column is given showing the number of miles covered in the movement of these respective amounts of freight.

The principal facts concerning the freight movement are given in the subjoined summary:

TABLE H.—SUMMARY SHOWING THE AMOUNT OF FREIGHT MOVED AND MILES TRAVELED BY THE PASSENGER AND FREIGHT CARRYING VESSELS OF THE ATLANTIC COAST AND GULF OF MEXICO IN THE VARIOUS TRAFFIC DISTRICTS.

DISTRICTS.	Tons of freight moved.	Number of miles traveled	
Total	80, 695, 665	73, 126, 338	
Portland	5, 988, 284	7, 256, 508	
Boston	11, 990, 935	9, 995, 795	
New York	32, 713, 210	19, 777, 154	
Philadelphia	6, 418, 448	5, 415, 689	
Baltimore	5, 608, 839	5, 838, 703	
Norfolk	5, 075, 198	4, 355, 895	
Savannah	5, 769, 609	7, 181, 705	
Mobile	1, 003, 821	2, 081, 010	
New Orleans	1, 144, 754	1, 288, 269	
Galveston	717, 381	1, 629, 890	
Pacific coast	307, 597	561, 970	
Foreign	3, 957, 589	7, 743, 750	

A large amount of the freight traffic reported on was internal; that is, it was carried on within the 10 coast districts by vessels trading either from port to port embraced in each district or on local waters. This amount of internal traffic is shown in the following summary:

TABLE 1.—SUMMARY SHOWING THE AMOUNT OF FREIGHT MOVED AND MILES TRAVELED IN THE INTERNAL TRAFFIC OF THE 10 DISTRICTS OF THE ATLANTIC COAST AND GULF OF MEXICO.

DISTRICTS,	•	Number of miles traveled.
Total	24, 495, 500	14, 526, 768
Portland	483, 689	1, 085, 833
Boston	465, 815	613, 670
New York	17, 817, 212	5, 571, 914
Philadelphia	938, 024	1, 034, 634
Baltimore	899, 656	1, 580, 938
Norfolk	731, 767	4 53, 5 6 5
Savannah	1, 630. 146	2, 150, 060
Mobile	488, 341	1, 034, 080
New Orleans	788, 503	539, 514
Galveston	252, 347	432, 560

EARNINGS AND EXPENSES.

The figures which are given in Table 11 show the income and expense account of the freighting vessels of the Atlantic coast and Gulf of Mexico for the year ending December 31, 1889. They are given under the heads of "Gross earnings". "Expenses", and "Net earnings", and for steamers, sailing vessels, and unrigged craft allotted to districts. The totals for all the ports embraced in these districts show that the gross earnings of the whole operating fleet amounted to \$70,843,633 and the expenses to \$54,080,214, leaving the net earnings at \$16,763,419. The relative earnings and expenses of steamers, sailing vessels, and unrigged craft are shown in the summary on the following page.

TABLE J.—SUMMARY SHOWING THE TOTAL EARNINGS, EXPENSES, AND NET EARNINGS OF THE PASSENGER AND FREIGHT CARRYING VESSELS OF THE ATLANTIC COAST AND GULF OF MEXICO DURING THE YEAR ENDING DECEMBER 31, 1889.

CLASSES OF VESSELS.	Gross earnings.	Expenses.	Net earnings.
Total	\$70, 843, 633	\$54, 080, 214	\$16, 763, 419
Steamers	30, 112, 259	23, 075, 441	7, 036, 818
Sailing vessels	31, 700, 178	23, 420, 855	8, 270, 323
Unrigged craft	9, 031, 196	7, 583, 918	1, 447, 278

In Table 12 the expenses of the passenger and freight carrying vessels are divided into running and shore expenses, with the same classifications as occur in Table 11; that is, they are presented for steamers, sailing vessels, and unrigged, and for the districts of the Atlantic coast and Gulf of Mexico. The very large proportion of the whole expense which comes under the head of "Running expenses" is emphasized in this table, the figures showing that out of a total of \$54,080,214 no less than \$47,046,211 were running expenses. The relative running expenses of steamers and sailing vessels are clearly indicated in the subjoined summary:

TABLE K.—SUMMARY SHOWING THE AMOUNT OF RUNNING AND SHORE EXPENSES OF THE PASSENGER AND FREIGHT CARRYING VESSELS OF THE ATLANTIC COAST AND GULF OF MEXICO DURING THE YEAR ENDING DECEMBER 31, 1889.

CLASSES OF VESSELS.	Total expenses.	Running expenses.	Shore expenses.
Total	\$54, 080, 214	\$47, 946, 211	\$7, 084, 0 03
Steamers	23, 075, 441	19, 448, 817	3, 626, 624
Sailing vessels	23, 420, 855	21, 120, 368	2, 300, 487
Unrigged	7, 583, 918	6, 477, 026	1, 106, 892

EMPLOYES AND WAGES.

Out of the total of running expenses \$16,333,338 were paid during the year as wages, as shown in Table 13. That table also shows that the total amount of wages paid on board the steamers was \$5,868,525; on board sailing vessels, \$8,419,657, and on board unrigged craft, \$2,045,156. Table 14 shows the wages paid per month to every class of employés from captains to boys, together with the number of persons of each class employed during the month of report. This number of men constituted what is called the number making the ordinary crews of vessels.

GENERAL OPERATIONS.

The 8 tables, 15 to 22, inclusive, segregate the principal figures of equipment, traffic, and financial data into a separate table for each class of occupation; that is, they give all the available totals for passenger and freight vessels, ferryboats, towing boats, yachts, harbor craft, miscellaneous craft, and those making no traffic report, and a comprehensive summary.

From the information in these 8 tables 2 supplementary tables are drawn. The first presents the financial account of other vessels than those classified as passenger and freight; that is, of the ferryboats, towing boats, harbor craft, and miscellaneous craft, together with those of the passenger and freight carrying vessels, to make the total financial account of the operating fleet of the Atlantic coast and Gulf of Mexico.

TABLE L.—SUMMARY SHOWING THE GROSS EARNINGS, EXPENSES, AND NET EARNINGS OF THE OPERATING FLEET OF THE ATLANTIC COAST AND GULF OF MEXICO.

CLASSES OF OCCUPATIONS.	Gross carnings.	Expenses.	Net earnings.	:
Total	\$90, 147, 632	\$ 70, 226, 792	\$19,920,840	į
Passenger and freight	70, 843, 633	54, 080, 214	16, 763, 419	ı
Ferryboats	5, 392, 969	4, 568, 238	824, 731	1
Towing boats	10, 131, 921	8, 526, 733	1. 605, 188	1
Harbor craft	2, 225, 751	1, 729, 458	496, 293	:
Miscellancous craft	1, 553, 358	1,7322, 149	231, 209	

The second supplementary table contains separate statements of the employés and wages paid on ferryboats, towing boats, harbor craft, and miscellaneous craft, these facts being shown in the summary on the following page.

TABLE M.—SUMMARY SHOWING THE TOTAL WAGES PAID DURING THE YEAR TO THE TOTAL NUMBER OF MEN EMPLOYED ON THE PRINCIPAL OPERATING VESSELS OF THE ATLANTIC COAST AND GULF OF MEXICO DURING THE YEAR 1889.

CLASSES OF OCCUPATIONS.	Common seamen employed.	Average wages per month paid common seamen.	Number making ordinary . crews.	Total wages paid during year.
Total	17, 418	\$ 21.38	63, 625	\$22, 123, 090
Passenger and freight	17,418	21.38	52, 659	16, 333, 338
Ferryboats			1, 710	1, 276, 847
Towing boats			6, 152	3. 042, 066
Harbor craft	!		1, 784	765. 788
Miscellaneous craft		1	1, 320	705, 060

The number given in the column entitled "Ordinary crews" is the number required to work and officer the operating vessels reported for the different districts.

FUEL ACCOUNT.

The fuel account which is presented in Table 23 is made up from the itemized reports of all steamers; and from the summary, which is appended, it will be seen that their operations required the consumption of 2,298,418 tous of coal and 130,585 cords of wood. The cost of the coal was \$7,512,650, or an average of \$3.27 per ton, and that of the wood was \$238,837, or an average cost of \$1.83 per cord.

TABLE N.—SUMMARY SHOWING THE QUANTITIES OF COAL AND WOOD BURNED BY PASSENGER AND FREIGHT STEAMERS, FERRYBOATS, HARBOR CRAFT, AND STEAM YACHTS OF THE ATLANTIC COAST AND GULF OF MEXICO DURING THE YEAR 1889.

DISTRICTS.	Coal. (Tons.)	Wood. (Cords.)
Total	2, 298, 418	130, 585
Portland	74, 619	325
Boston	320, 385	
New York	1, 239, 822	4. 838
Philadelphia	301, 548	600
Baltimore	170, 839	
Norfolk	33, 291	16, 430
Savannah	65, 502	33, 799
Mobile	13, 023	60, 051
New Orleans	74, 890	8, 997
Galveston	4, 499	5, 545

COMPARATIVE STATISTICS.

The 23 tables which have been considered present the statistics for the year ending December 31, 1889, while the 15 tables numbered from 24 to 38, inclusive, give the comparative statistics either for the 2 years 1880 and 1889 or for the 10 years 1880–1889, inclusive.

Tables 24 to 27, inclusive, deal only with the 2 years of report, 1880 and 1889, the information being the summarized reports on transportation for the Tenth and Eleventh Censuses, use being made only of such tables drawn from both reports as could be comparatively presented. The only branch of transportation on the Atlantic coast and Gulf of Mexico fully reported at the Tenth Census was that conducted by steamers. The distribution of the data, it will be seen, is by states, as that segregation was adopted in the Tenth Census, and the statistics are those simply of the number, tonnage, and value of all steamers, their gross earnings, the crews, the amount paid to them in wages, and the freight and passenger traffic. The total steamer fleet of the Atlantic coast and Gulf of Mexico in 1880 numbered 2,195, with a tonnage of 613,986.02, and a valuation of \$45,394,700; the fleet in 1889 numbered 2,933, with a tonnage of 837,162, and a valuation of \$73,554,540, the increase in number being 738, in tonnage being 223,175.98, and in valuation being \$28,159,840. No balance of accounts was made in 1880, but the gross earnings of the steamers was \$44,430,765, and as that of the steamers in 1889 was \$48,003,020, it shows an increase of \$3,572,255. The increase in traffic was still more noteworthy, the freight movement in 1880 being 9,505,944 tons, while in 1889 it amounted to 28,791,438 tons, exclusive of freight carried by ferryboats at both censuses; the passenger traffic, including ferry passengers, for 1880 was 152,784,517 persons, and in 1889, 170,225,458. Only in the subject of total wages paid do the figures for 1889 show a decrease as against those of 1880, for while

the total wages paid to 24,910 men in 1880 was \$12,964,874, in 1889, 25,653 men were paid but \$11,239,169, which very clearly illustrates the difference in the scale of wages at the two dates. In 1880 the average annual wages per man on the steamers of the Atlantic coast and Gulf of Mexico was \$520.47, but in 1889 the average annual wages on the same class of craft and in the same locality was but \$438.12, a decrease of \$82.35 in the annual average wages per man.

FLEETS FOR THE DECADE.

Tables 28 to 38, inclusive, deal with the fleets registered in the ports of the Atlantic coast and Gulf of Mexico during the 10 years 1880-1889, inclusive, and have been compiled from the reports of the Bureau of Navigation. They illustrate the changes in the number and tonnage of the registered steamers, sailing vessels, and unrigged craft, the fluctuations of tonnage, the averages of the tonnage of the vessels composing the fleet in each year, the accessions to the fleet by shipbuilding, and the methods of propulsion of the steamers built during the decade. These tables are summarized as follows:

TABLE O.—SUMMARY SHOWING THE NUMBER, TONNAGE, AND AVERAGE TONNAGE OF ALL VESSELS REGISTERED IN THE DISTRICTS OF THE ATLANTIC COAST AND GULF OF MEXICO FOR THE 10 YEARS 1880-1889, INCLUSIVE.

			_ 				
YEARS.	Number.	Tonnage.	Average tonnage.	! YEARS.	Number.	Tonnage.	Average tonnage.
			·				
1880	17, 484	2, 657, 349	152	1885	17, 771	2, 781, 791	157
1881	17, 589	2, 652, 319	151	1886	17, 362	2,659,448	153
1882	17, 897	2,714,281	152	1887	17, 029	2, 595, 307	152
1883	17, 856	2,770,017	155	1888	17, 180	2, 587, 089	151
1884	17. 922	2, 819, 586	157	1889		2, 555, 649	149
			1				

TABLE P.—SUMMARY SHOWING THE NUMBER, TONNAGE, AND AVERAGE TONNAGE OF ALL STEAMERS REGISTERED IN THE DISTRICTS OF THE ATLANTIC COAST AND GULF OF MEXICO FOR THE 10 YEARS 1880-1889, INCLUSIVE.

YEARS.	Number.	Tonnage.	Average tonnage.	YEARS.	Number.	Tonnage.	Average tonnage.
						· · 	
1880	2, 251	631, 302	280	1885	2, 671	773, 444	290
1881	2, 364	644, 204	273	, 1886	2,662	763, 302	287
1882	2, 532	692, 959	274	1887	2, 680	773, 823	289
1883	2, 584	730, 308	283	1883	2,763	785, 164	284
1884	2, 693	755, 754	281	1889	2, 829	798, 912	282
	1				i i		

TABLE Q.—SUMMARY SHOWING THE NUMBER, TONNAGE, AND AVERAGE TONNAGE OF ALL SAILING VESSELS REGISTERED IN THE DISTRICTS OF THE ATLANTIC COAST AND GULF OF MEXICO FOR THE 10 YEARS 1880-1889, INCLUSIVE.

YEARS.	Number.	Tonnage.	Average tonnage.	YEARS.	Number.	Tonnage.	A verage tounage.
1880	14, 609 14, 576 14, 593	1, 912, 800 ; 1, 884, 739 ; 1, 876, 736	131 129 i29	1885. 1886. 1887.		1, 8 6 0, 058 1, 742, 766 1, 665, 070	130 125 122
1883. 1884.	14, 500		130 132	1888. 1889.	13, 459	1, 584, 309 1, 525, 315	118 114

TABLE R.—SUMMARY SHOWING THE NUMBER, TONNAGE, AND AVERAGE TONNAGE OF ALL UNRIGGED CRAFT REGISTERED IN THE DISTRICTS OF THE ATLANTIC COAST AND GULF OF MEXICO FOR THE 10 YEARS 1880-1889, INCLUSIVE.

	<u></u>							
	YEARS.	Number.	Tonnage.	Average tonnage.	YEARS.	Number.	Tonnage.	Average tonnage.
						1	-	<u> </u>
1880		624	113, 247	181	1885	746	148, 289	199
1881	·	649	123, 376	190	1886	763	153, 380	201
1882	· • • • • • • • • • • • • • • • • • • •	772	144, 586	187	1887	697	156, 414	224
1883		772	150, 271	195	1888	958	217, 616	227
1884		740	145, 826	197	1889	1, 000	231, 422	231
				1	•			

TABLE S.—SUMMARY SHOWING THE NUMBER, TONNAGE, AND AVERAGE TONNAGE OF THE STEAMERS AND SAILING VESSELS BUILT ON THE ATLANTIC COAST AND GULF OF MEXICO IN THE 10 YEARS 1880-1889, INCLUSIVE.

		STEAMERS.	:	SAILING VESSELS.			
YEARS.	Number.	Tonnage.	Average tonnage.	Number.	Tonnage.	Average tonnage	
Total for 10 years	1,610	418, 684	260	4, 562	618, 705	136	
1880	141	32, 974	234	397	52, 671	133	
1881	185	41, 394	224	406	60, 890	150	
1882	210	56, 343	268	553	93, 585	169	
1883	189	65, 078	344	631	119, 060	189	
1884	197	49, 036	249	634	108, 200	171	
1885	155	44, 017	284	465	59, 332	128	
1886	100	19, 006	191	355	33, 116	93	
1887	123	38, 972	317	371	24, 252	65	
1838	161	30, 466	189	333	30, 318	91	
1889	149	41, 308	277	417	37, 281	89	

TABLE T.—SUMMARY SHOWING THE NUMBER AND TONNAGE OF PROPELLERS AND SIDE-WHEEL AND STERN-WHEEL STEAMERS BUILT ON THE ATLANTIC COAST AND GULF OF MEXICO DURING THE 10 YEARS 1880-1889, INCLUSIVE.

YEARS.	METHODS OF PROPULSION.							
	Prop	eller.	Side	wheel.	Stern-wheel.			
	Number.	Tonnage.	Number.	Tonnage.	Number.	Tonnage		
Total for 10 years	1, 291	308, 338	197	98, 364	122	11, 982		
1880	103	23, 964	29	8, 076	9	934		
1881	145	31,061	25	٠, 017	15	1.316		
1882	169	38, 601	. 27	16, 622	14	1, 120		
1883	155	55, 343	24	8, 532	10	1, 203		
1884	169	42, 479	11 11	4, 328	17	2, 229		
1885	121	30, 655	24	12, 529	10	833		
1886	85	12, 809	8	5, 920	g 7	358		
1887	99	29, 836	14	8, 420	10	716		
1888	128	17, 601	18	11, 231	15	1,634		
1889	117	25, 989	17	13, 680	15	1,639		

CONGRESSIONAL APPROPRIATIONS.

Table 39 gives the amount appropriated by Congress for the survey, improvement, and maintenance of the ports, harbors, and landings on the Atlantic coast and Gulf of Mexico and of the rivers flowing into them, from the date of the earliest appropriation to and including that of the act of Congress of September 19, 1890. The periods in which the appropriations are grouped are from the first appropriation up to and including 1879; from 1880 to 1889, inclusive; the appropriations in 1890, and the total appropriations from first to last. The localities improved under congressional aid number nearly 400, while the items of appropriation number nearly 1,500. It will be seen from this table that the earliest appropriation made by the government for river and harbor improvement on the Atlantic coast and Gulf of Mexico was in 1821, when, by the act of March 3, \$150 was appropriated "For the purpose of enabling the Secretary of the Navy to remove obstructions placed in the river Thames in Connecticut by the commander of the American ships during the late war" (1812). Improvements of the coast waterways of Maine, Massachusetts, Rhode Island, Connecticut, New York, New Jersey, Delaware, Pennsylvania, Virginia, North Carolina, Georgia, Florida, Alabama, and Mississippi were made between 1820 and 1830; those of New Hampshire, Maryland, District of Columbia, South Carolina, and Louisiana were commenced within the next 10 years, while improvements were begun in Texas very soon after its acquisition, \$9,500 having been appropriated in 1852 for the survey of its harbors and the rivers emptying into the Gulf of Mexico. The state for which the largest amount of appropriations has been made is New York, with \$9,285,568, the magnitude of this amount being largely due to the sums expended in the removal of obstructions in Hell Gate. The state which received the next largest amount of appropriations is Louisiana, with \$8,579,136, nearly the whole of this amount having been expended in the improvements of the delta and passes of the Mississippi river. Texas, though the last to receive congressional aid, comes third in the amount so received, with \$6,482,850, this amount being due to the sums expended on Galveston harbor and bay and on various "passes".

TABLE U.—SUMMARY SHOWING THE AMOUNTS APPROPRIATED BY CONGRESS FOR THE SURVEY, IMPROVEMENT, AND MAINTENANCE OF THE HARBORS AND RIVERS OF THE ATLANTIC COAST AND GULF OF MEXICO, GIVEN BY PERIODS AND ALLOTTED TO THE RESPECTIVE STATES FOR WHICH THE APPROPRIATIONS WERE MADE.

. LOCALITIES.	Date of carliest appropriations.	Total appropriations up to date.	Appropriations up to and including 1879.	Appropriations for 1880-1889, inclusive.	Appropriations September 19, 1890.
Total	1821	\$79, 582, 684	\$37, 480, 428	\$33, 293, 406	\$8, 808, 850
Maine	1826	2, 490, 634	1, 305, 884	766, 250	418, 500
New Hampshire	1836	407, 500	105, 000	214, 500	88, 000
Massachusetts	1824	4, 833, 249	2, 657, 999	1, 668, 750	506, 500
Rhode Island	1827	1, 538, 950	577, 700	746, 250	215, 000
Connecticut	' 1821	2, 763, 327	1, 252, 777	1, 185, 550	325, 000
New York	1820	9, 285, 568	4, 304, 568	3, 881, 000	1, 100, 000
New Jersey	, 1829	1, 893, 038	551,063	1, 166, 975	175, 000
Delaware	1822	4, 111, 265	3, 168, 665	814, 500	128, 100
Pennsylvania	1826	745, 850	351, 100	344, 750	50,000
Maryland	1836	3, 513, 593	1. 355, 318	1, 750, 775	407, 500
District of Columbia	1833	2, 606, 500	501, 500	1, 825, 060	280, 000
Virginia	1829	3, 495, 380	1, 292, 580	1, 694, 800	508, 000
North Carolina	1826	4, 269, 309	1, 919, 059	1, 910, 250	440, 000
South Carolina	1836	3, 028, 000	550, 000	1, 895, 000	583, 000
Georgia (on the Atlantic)	' 1826	2, 918, 706	1, 120, 597	1, 285, 609	512, 500
Florida (on the Atlantic)	1829	1, 369, 070	146, 570	982, 000	240, 500
Florida (on the Gulf of Mexico)	1828	945, 280	230, 280	579 , 5 00	135, 500
Georgia (a)	1874	27, 300	23, 300	4,000	
Alabama	1826	2, 647, 502	821, 752	1, 301, 750	524, 000
Mississippi	1827	447, 525	76, 400	311, 125	6 0, 00 0
Louisiana	1836	8, 579, 136	7, 767, 489	591, 647	220, 000
Texas	1852	G, 482, 850	1, 247, 200	4, 342, 500	893, 150
Miscellaneous (all states)	1828	6, 092, 450	1, 321, 500	3, 772, 050	998, G00
General appropriations (all states)	1841	5, 090, 702	4, 832, 127	258, 575	

a Rivers emptying into other rivers which flow into the Gulf of Mexico.

EQUIPMENT, OCCUPATION, AND CONSTRUCTION.

TABLE 1.—EQUIPMENT OF FLEETS IN GENERAL—NUMBER, TONNAGE, AND VALUATION OF ALL STEAMERS, SAILING VESSELS, AND UNRIGGED CRAFT OF 5 TONS BURDEN AND OVER, REGISTERED OR OWNED IN THE PORTS OF THE ATLANTIC COAST AND GULF OF MEXICO, BY PORTS, WITH TOTALS FOR DISTRICTS.

SUMMARY.

	TOT	TAL OF ALI	CRAFT.		STEAME	RS.		AILING VE	SSELS.	ľ	NRIGGED C	EAFT.
DISTRICTS.	Num- ber.	Tonnage.	Valuation.	Num- ber.	Tonnage.	Valuation.	Num- ber.	Tonnage.	Valuation.	Num- ber.	Tonnage.	Valuation.
Total	13,466	2, 862, 630	* 127, 676, 4 87	2, 933	837, 162	\$73,554,540	7, 108	1, 401, 985	\$46, 284, 507	3, 425	623, 483	\$7, 837, 440
1. Portland. 2. Boston. 3. New York. 4. Philadelphia. 5. Baltimore. 6. Norfolk. 7. Savanuah.		504. 196 458, 806 1, 205, 684 382, 835 138, 443 32, 077 63, 027	16, 587, 367 19, 446, 030 60, 538, 535 15, 051, 700 7, 046, 760 1, 627, 025 3, 507, 860	135 275 1, 376 355 229 154 189	26, 918 108, 290 442, 871 91, 065 71, 756 13, 550 37, 121	2, 511, 150 9, 033, 130 40, 973, 060 8, 592, 250 5, 355, 050 1, 169, 600 2, 958, 850	1, 678 977 2, 017 705 533 286 299	460, 589 314, 820 402, 704 147, 649 40, 535 10, 007 8, 432	13, 878, 422 9, 947, 225 14, 331, 805 5, 038, 200 1, 466, 060 413, 760 420, 925	155 214 1, 812 496 160 121 292	16, 689 35, 696 860, 109 144, 121 26, 152 8, 520 17, 474	197, 795 485, 675- 5, 233, 670 1, 421, 250 225, 650 43, 605- 128, 025
8. Mobile 9. New Orleans 10. Galveston	480	28, 847 36, 304 12, 411	1, 440, 220 1, 910, 060 500, 990	126 56 38	11, 413 31, 407 2, 771	967, 750 1, 712, 700 281, 000	243 214 156	9, 671 4, 247 3, 331	429, 160 194, 360 164, 590	111 13	7, 763 650 6, 309	43, 310 3, 000- 55, 400

EQUIPMENT, OCCUPATION, AND CONSTRUCTION—Continued.

TABLE 1.—EQUIPMENT OF FLEETS IN GENERAL—Continued.

STEAMERS, SAILING VESSELS, AND UNRIGGED CRAFT.

	тот	: 'AL OF ALI	L CRAFT.		STEAME	 t6.	8	AILING VE		·	NRIGGED C	RAPT.
DISTRICTS AND PORTS.	Num- ber.	Tonnage.	Valuation.	Num- ber.	Tonnage.	Valuation.	Num- ber.	Tonnage.	Valuation.	Num- ber.	Tonnage.	Valuation.
Total	13, 466	2, 862, 630	\$127, 676, 487	2, 933	837, 162	\$73 , 554, 540	7, 108	1, 401, 985	\$46, 294, 507	3, 425	623, 483	\$7, 837, 440
District 1—Portland	1,968	504, 196	16, 587, 367	135	26, 918	2, 511, 150	1, 678	460, 589	13, 878, 422	155	16, 689	197, 795
Eastport, Me Lubeck, Me Machias, Me Calais and Franklin, Me Castine, Me	52 15 206 75 58	10, 094 1, 316 30, 896 9, 742 3, 526	583, 635 27, 820 848, 540 264, 185 72, 500	3	4, 800	423, 500 11, 600	40 15 203 75 58	5, 294 1, 316 30, 816 9, 742 3, 526	160, 135 27, 820 836, 940 264, 185 72, 500			
Buckport, Me Sedgwick, Me Mount Desert Ferry, Me Deer Isle, Me Southwest Harbor, Me	23 18 45	4, 040 1, 728 1, 255 4, 030 677	111, 520 51, 380 20, 270 99, 000 12, 350				18	4, 040 1, 728 1, 255 4, 030 677	111, 520 51, 380 20, 270 99, 000 12, 350		.¦	
Sullivan, Me Ellsworth, Me Belfast and Lincolnville, Me Searsport, Me Bangor, Me	125 52 26	445 11. 076 12, 879 17, 219 22, 309	11, 000 323, 550 352, 220 393, 265 653, 940	15 17	.	123, 500 153, 100	6 110 52 26 128	10, 253 12, 879 17, 219 20, 615	200, 050 352, 220 393, 265			
St. George, MeThomaston, MeRockland, MeNorth Haven, MeCamden and Rockport, Me	148	4, 396 37, 939 25, 948 1, 346 23, 019	127, 260 1, 224, 235 786, 265 56, 000 814, 190				148 18	4, 396 37, 939 25, 948 1, 346 23, 019	1, 224, 235 786, 265	4		
Boothbay, Me	24 31 30	1,856 2,499 11,907 8,343 147,673	63, 300 61, 850 436, 940 277, 030 5, 503, 672	1 4 34	1,661		32 23 27 30 206	1, 856 2, 449 10, 246 8, 343 141, 096	63, 300 53, 550 303, 940 277, 030 4, 776, 272			
Portland, Me	11 11 41	78, 061 197 2, 315 2, 134 8, 642 16, 689	2, 713, 630 4, 300 77, 380 53, 265 365, 080 197, 795	39 1 1 8	10, 768 26 43 396	874, 600 3, 750 5, 000 47, 400	157 4 8 10 33	67, 293 197 2, 289 2, 091 8, 246	1, 839, 030 4, 300 73, 630 48, 265 317, 680			197, 795
District 2—Boston	1, 466	458, 806	19, 466, 030	275	108, 290	9, 033, 130	: 977	314, 820	9, 947, 225	214	35, 696	185, 675
Salem, Mass Marblehead, Mass Newburyport, Mass. Gloucester, Mass Boston, Mass	20 25 55	5, 319 1, 666 11, 302 4, 649 255, 186	176, 785 80, 590 396, 800 261, 735 10, 538, 500	11 3 10 10 139	288 73 453 549 57, 849	37, 700 4, 200 53, 500 64, 500 4, 700, 030	22 17 15 45 527	1,593 10,849 4,100	197, 235			
Plymouth, Mass Duxbury, Mass Scituate, Mass Falmouth, Mass Provincetown, Mass	1	760 83 2,601	3, 135	1	20	8, 000 5, 700	{ 11 7 7 5 13	633 107 83 80 2, 490	3, 135		.	
Dennis, West Dennis, and South Dennis, Mass. Chatham, Mass. Wellfleet, Mass. Barnstable and Hyannis, Mass. Edgartown, Mass.	12 20 11	8, 814 36 1, 775 3, 821 804	1, 100 58, 350 123, 050				27 2 12 20 10	8, 814 36 1, 775 3, 821 788	1, 100 58, 350 123, 050 25, 950	; :	: 	
Nantucket, Mass Fall River, Mass New Bedford, Mass Bristol, R. I Newport, R. I Providence, R. I. Unrigged craft, all ports	87 70 19 64 94	58, 500 25, 638 1, 355 6, 554 33, 860 35, 696	12, 350 3, 437, 450 846, 705 103, 020 560, 630 1, 968, 070 485, 675	1 20 13 7 17 40	318 1, 4 51	1, 000 2, 105, 700 245, 400 68, 000 161, 200 1, 576, 400	67 57 12 47 54	5, 103	11, 350 1, 331, 750 603, 305 34, 420 399, 430 391, 670		.	445, 675
District 3-New York	5, 205	1, 205, 684	60, 508, 535	1, 376	442, 871	40. 973, 060	2,017	402, 704	14, 331, 805	1,812	360, 109	5, 233, 670
New London, Conn Stonington, Conn New Haven, Conn Bridgeport, Conn Hartford, Conn	134 77	35, 448 3, 719 45, 118 13, 429 7, 419		42 4 34 29 23	775 9, 001		75 40 100 48 34	5, 472	204, 530			
Patchogue, N. Y New York, N. Y Cold Spring Harbor, N. Y Albany, N. Y Port Jefferson, N. Y	2, 258 62 219	1, 084 656, 675 3, 511 32, 258 6, 279	89, 730 43, 385, 250 121, 530 3, 519, 465 188, 715	3 972 1×1	360, 938 29, 377	11, 300 32, 951, 410 3, 430, 200	1, 286 62 38 55	1, 037 295, 737 3, 511 2, 881 6, 279	121, 530 89, 265	,1::::::		
Greenport, N. Y	11 63 177	6, 784 1, 402 5, 157 27, 292 360, 109	283, 160 108, 040 428, 810 1, 543, 685 5, 233, 670	36 47	162 648 3,570 7,738	16, 500 86, 000 347, 950 896, 400	53 10 27 130	6, 622 754 1, 587 19, 554	22, 0 40 80, 8 6 0		· · · · · · · · · · · · · · · · · · ·	5, 233, 679

TABLE 1.-EQUIPMENT OF FLEETS IN GENERAL-Continued.

STEAMERS, SAILING VESSELS, AND UNRIGGED CRAFT—Continued.

	TO	TAL OF ALI	. CRAFT.		STEAME	ts.	8	ALLING VE	SSELS.	τ	NRIGGED C	RAFT.
districts.	Num- ber.	Tonnage.	Valuation.	Num- ber.	Tonnage.	Valuation.	Num- ber.	Tonnage.	Valuation.	Num- ber.	Tonnage.	Valuation.
District 4—Philadelphia	1,556	382, 835	\$15, 051, 700	355	91,065	\$8, 592, 250	705	147, 649	\$5, 038, 200	496	144, 121	\$1, 421, 250
Tuckerton, N. J. Somers Point, N. J. Bridgeton, N. J. Camden, N. J. Burlington, N. J.	14 95 94 109 16	1,868 15,076 14,574 19,486 1,486	74, 600 568, 560 473, 125 1, 195, 300 114, 100	2 2 4 44 16	68 300 396 10,514 1,486	12, 600 36, 000 45, 900 901, 750 114, 100	12 93 90 65	1, 800 14, 767 14, 178 8, 972	62, 000 532, 560 427, 225 203, 550	·		
Trenton, N.J	27 542 143 1	1, 762 156, 721 26, 086 83	43, 650 8, 994, 490 2, 096, 535 6, 000	249 38		5, 882, 400 1, 599, 500	27 293 105 1	1,762 93,186 11,329 83	43, 650 3, 112, 090 497, 035 6, 000	· · · · · · · · ·		
Seaford, Del New Castle, Del Chincoteague, Va Unrigged craft, all ports	11, 5 3 496	1, 286 181 105 144, 121	50, 640 7, 900 5, 550 1, 421, 250				11 5 3	1, 286 181 105	50, 640 7, 900 5, 550	496		
District 5—Baltimore	922	138, 443	7, 046, 760	229	71,756	5, 355, 050	533	40, 535	1, 466, 060	160	26, 152	225, 650
Baltimore, Md Crisfield, Md Annapolis, Md Georgetown, D. C.	527 73 23 97	93, 760 4, 281 1, 017 10, 528	5, 783, 200 166, 550 30, 300 707, 310	172 3	61, 962 171 8, 939	4, 619, 200 18, 900 654, 000	355 70- 23 55		1, 164, 000 147, 650 30, 300 53, 310			
Onancock, Va Cape Charles, Va Alexandria, Va Unrigged craft, all ports	} 7 35 160	426 2, 279 26, 152	28, 100 105, 650 225, 650	2 10	238 446	18, 600 44, 350	{ 4 1 25	164 24 1, 833	7,700 1,800 61,300	160		225, 650
District 6—Norfolk	561	32, 077	1, 627, 025	154	13, 550	1, 169, 600	286	10,007	413, 760	121	8, 520	43, 665
Norfolk, Va. Newport News, Va. Petersburg, Va Richmond, Va. Tappabannock, Va.	120 10 2 23 13	8, 312 1, 677 37 2, 813 581	604, 440 114, 000 8, 500 201, 000 23, 100	66 4 2 16	5, 575 1, 198 37 1, 178	483, 400 93, 000 8, 500 139, 100	54 6 7 13	2,737 479 1,635 581	61,900	ļ		
Bdenton, N. C. Newbern, N. C. Beaufort, N. C. Wilmington, N. C. Unrigged craft, all ports	58 105 57 52 121	3, 204 3, 051 1, 295 2, 587 8, 520	209, 280 149, 880 67, 880 205, 280 43, 665	19 22 2 2 23	2, 536 1, 310 73 1, 643	179, 900 94, 000 8, 300 163, 400	39 63 55 29	668 1,741 1,222 944	29, 380 55, 880 59, 580			43, 665
District 7—Savaunah	780	63,027	3, 507, 800	189	37, 121	2, 958, 850	299	8, 432	420, 925	292	1	128, 02
Georgetown, S. C. Charleston, S. C. Beaufort, S. C. Savannah, Ga Brunswick, Ga.	19 165 25 80 40	1, 523 7, 586 967 23, 594 4, 140	129, 600 528, 200 113, 450 1, 629, 550 336, 850	13 38 10 36 26	1, 010 5, 458 670 21, 541 3, 687	109, 600 417, 800 91, 500 1, 554, 100 297, 950	127 15 44 14	513 2, 128 297 2, 053 453	20, 000 110, 400 21, 950 75, 450 88, 900			
St. Mary, Ga Fernandina, Fla Jacksonville, Fla. St. Augustine, Fla Key West, Fla Unrigged craft, all ports	61	57 266 4,407 818 2,195 17,474	7, 000 32, 000 369, 500 91, 175 142, 450 128, 025	1 2 44 15 4	34 180 3, 034 549 958	5, 000 23, 000 319, 800 78, 400 61, 700	1 4 17 16 55	23 86 1,373 269 1,237	9,000 49,700	·'		128, 025
District 8—Mobile	480	28, 847	1, 440, 220	126	11, 413	967, 750	243	9, 671	429, 160	111		43, 310
Tampa, Fla	20 103 83 113	1,010 853 1,376 5,668 6,293 5,884 7,763	81, 700 62, 200 109, 150 376, 250 436, 660 330, 950 43, 310	15 10 13 28 49 11	791 628 1, 257 1, 989 4, 915 1, 833	74, 500 44, 400 101, 000 245, 300 394, 650 107, 900	7	219 225 119 3, 679 1, 378 4, 051	17, 800 8, 150 130, 950		.' .'	43, 310
District 9—New Orleans	283	36, 304	1, 910, 060	56	31, 407	1, 712, 700	214	4, 247	194, 360	'' 13	650	3,000
New Orleans, La. Brashear, La. Lake Charles, La. Unrigged craft, all ports.	192 61 17 13	33, 328 1, 712 614 650	1,720,130 143,980 42,950 3,000	31 21 4	30, 263 1, 016 128	1, 578, 400 112, 300 22, 000	161 40 13	3, 065 696 486	141, 730 31, 680 20, 950	13	650	3,000
District 10—Galveston	245	12, 411	500, 990	38	2, 771	281, 000	156	3, 331	164, 590	51	6, 309	55, 400
Galveston, Tex	167 12 7 8	5, 133 408 399 162	389, 790 11, 500 38, 000 6, 300	35 1 2	2, 482 21 268	248, 000 3, 000 30, 000	132 11 5 8	2, 651 387 131 162		1,		

EQUIPMENT, OCCUPATION, AND

Table 2.—EQUIPMENT OF FLEETS BY CLASSIFIED TONNAGE—NUMBER, TONNAGE, AND VALUATION OF ALL STEAMERS BY DISTRICTS.

STEAMERS.

			TOTA	L.	2,50	N BROT O	ND OVER.	1,0	00 то 2,	500 tons.	50	0 то 1,0	00 tons.	40	00 to 500	O TONS.
	DISTRICTS AND STATES.	Num- ber.	Ton-	Valuation.	Num- ber.	Ton- nage.	Valuation.	Num- ber.	Ton- nage.	Valuation.	Num- ber.	Ton- nago.	Valuation.	Num- ber.	Ton- nage.	Valuation.
1	Total	2,933	837, 162	\$73,554,540	60	178, 505	\$14,929,800	160	242, 900	\$17,455,700	248	176, 431	\$13,506,680	102	45, 769	\$ 3,521,700
2 3 4 5 6	Portland	135 275 1,376 355 229	26, 918 108, 290 442, 871 91, 065 71, 756	2,511.150 9,033,130 40,973,060 8,592,250 5,355,050	13 33 6	39, 810 98, 079 18, 200 5, 266	3, 727, 600 7, 869, 900 1, 574, 300 395, 000	9 21 83 15 17	12, 208 34, 239 128, 282 20, 303 25, 696	962, 000 2, 020, 500 10, 124, 800 1, 662, 600 1, 547, 000	6 24 147 22 34	4, 954 16, 073 106, 174 14, 535 23, 835	385, 000 995, 680 8, 816, 900 1, 271, 400 1, 640, 800	4 9 47 20 9	1, 786 4, 299 21, 125 8, 713 4, 036	177, 000 300, 000 1, 640, 000 741, 100 281, 800
7 8 9	Norfolk Savannah Mobile	154 189 126	13, 550 37, 121 11, 413	1,169,600 2,958,850 967,750	4	10, 903	953, 000	3	4, 716	305, 000	2 8	1, 156 5, 309 957	38, 000 163, 800 15, 000	4 7	1,785 3,051	179, 896 181, 000
10 11	New Orleans Galveston	56	31. 407 2, 771	1,712,700 281,000	2	6, 247	410, 000	12	17, 456	833, 800		3, 438	180, 100	2	974	30,000
~							SAILIN	G VES	SELS.	1			1		<u> </u>	·
1	Total	7,108	1,401,985	46,284,507	3	8, 397	356, 540	285	426, 146	12, 288, 171	548	350, 825	11, 514, 995	304	136, 063	4, 286, 850
_	D41 3		400 500	10.000.400		• • • •	000 540	حالا خنت	***	F 005 051		200 454	0.001.505		05 000	1 150 00

1	Total	7,108	'ـــــــــــــــــــــــــــــــــــــ	46,284,507	.3	8, 397	356, 540	285	426, 146	12, 288, 171	548	350, 825	11, 514, 995	304	136, 063	4, 286, 850
2 3 4 5 6	Portland	977 2,017	460,589 314,820 402,704 147,649 40,535	13,878,422 9,947,225 14,331,805 5,038,200 1,466,060	1	2, 583	266, 540 90, 000	3	169, 638 112, 623 138, 626 5, 259	5, 035, 971 2, 991, 100 4, 046, 100 215, 000	156 160 142 72 14	103, 454 96, 502 94, 919 43, 796 9, 467	3, 321, 585 3, 236, 505 3, 028, 900 1, 470, 435 380, 020	79 76 81 57	35, 033 34, 334 36, 123 25, 626 4, 076	1, 170, 375 1, 010, 895 1, 087, 800 878, 280 113, 500
7 8 9	Norfolk Savannah Mobile		10,007 8,432 9,671	420,925 429,160			i					508 2,179	15, 750 61, 800	2	871	26, 000
10 11	New Orleans Galveston	214 156	4,247 3,331							; 1						

BY STATES.

STEAMERS.

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1	Total	2, 933	837, 162	73, 554, 540	60	178, 505	14, 929, 800	160	242, 900	17, 455, 700	248	176, 431	13, 506, 680	102	45, 769	3, 521, 700
2	Maine New Hampshire	127	26, 522 396	2, 463, 750 47, 400				0	12, 208	962, 000	6	4, 954	385, 000	4	1,786	177, 000
4 5	Massachusetts Rhode Island	211 64	84, 670 23, 620	7, 226, 930 1, 806, 200	9	28, 360 11, 450	2, 837, 600 890, 000	18	29, 581 4, 658	1, 880, 500 140, 000	19 5	12, 280 3, 793	761, 680 234, 000	9	4, 299	800, 000
0-	Connecticut	132	40, 891	3, 233, 300				12	18, 915	1, 286, 000	11	9, 482	693, 400	5	2, 259	127, 000
7 8	New York New Jersey	1, 161 151	391, 172 24, 081	36, 495, 410 2, 354, 700	33	98, 079	7, 869, 900	71 1	109, 367 1, 023	8, 838, 600 65, 000	131	93, 801 4, 555	7, 843, 500 387, 000	40 10	17, 880 4, 468	1, 463, 000 347, 500
9 10	l'ennsylvania l'elaware	249 38	63, 535 14, 757	5, 882, 400 1, 599, 500	4 2	12, 773 5, 427	1, 025, 000 549, 300	3	14, 321 4, 959	1, 072, 600 525, 000	16 3	11, 193 1, 678	979, 400 185, 000	12	5, 231	443, 600
11	Maryland	175	62, 133	4, 638, 100	2	5, 26 6	395, 000	16	24, 370	1, 487, 000	29	20, 353	1, 380, 800	6	2, 653	183, 800
12 13	Dist. of Columbia	42 100	8, 939 8, 672	654, 000 786, 950				1	1,326	60,000	5	3, 482 1, 156	260, 000 38, 000	3	1, 383 1, 361	98, 000 142, 800
14	North Carolina	66	5, 562	445, 600					. 		· · · · ·			1	424	28, 000
15 16	South Carolina Georgia	61 63	7, 138 25, 262	618, 900 1, 857, 050	4	10, 903	ย53, 000	3	4,716	305, 000	5	1,077 3,475	40,000 90,700	3	1, 375 1, 245	75, 000 94, 000
17		131	9, 386	948, 100		· • • • • • • • • • • • • • • • • • • •		ļ	!		1	757	33, 100	1	431	12,000
18 19	Alabama	49	4, 915 1, 833	394, 650 107, 900		• • • • • • • • • • • • • • • • • • •		•••••	j			957	15, 000		• • • • • • • • • • • • • • • • • • • •	
20	Louisiana	56	31, 407	1, 712, 700	2	6, 247	410,000	12	17, 456	833, 800	4	3, 438	180, 100	2	974	30,000
21	Texas	38	2,771	281,000			•••••	'							!	

SAILING VESSELS.

1	Total7, 108	1,401,985	46, 284, 507	3	8, 397	356, 540	285	426, 146	12, 288, 171	548	350, 825	11, 514, 995	304	136, 063	4. 286, 850
2 3 4 5 6	Maine	8, 246 296, 671 18, 149	9, 121, 705 825, 520			266, 540	2		4, 957, 171 78, 800 2, 896, 100 95, 000 193, 000	154 2 153 7 42	102, 234 1, 220 92, 373 4, 120 29, 269	3, 276, 585 45, 000 3, 097, 605 138, 900 1, 115, 590	76 3 68 8 18	83, 792 1, 241 30, 777 3, 557 7, 849	1, 114, 975 55, 400 881, 895 129, 000 301, 200
7 8 9 10 11	New York 1,563 New Jersey 444 Pennsylvania 293 Delaware 122 Maryland 448	316, 821 62, 620 93, 186 12, 879 36, 925	3, 112, 090 561, 575			90,000	3			91 28 53	59, 475 16, 874 32, 997 8, 737	1, 685, 310 587, 965 1, 110, 470 352, 020	59 20 37 4 9	26, 432 8, 945 16, 768 1, 755 4, 076	721, 100 278, 300 596, 740 68, 740 113, 500
13 14 15	Dist. of Columbia. 55 Virginia. 113 North Carolina. 206 South Carolina. 148 Georgia. 59	1, 589 7, 558 4, 575 2, 938 2, 529	303, 390 186, 720 152, 350					 		2	1, 338		ii	444 42 7	16, 000 10, 000
17 18 19 20 21	Florida. 199 Alabama 34 Mississippi 102 Louisiana 214 Texas. 156	7, 207 1, 378 4, 051 4, 247 3, 331	42, 010 223, 050 194, 360				i		! 						

CONSTRUCTION—Continued.

AND SAILING VESSELS OF 5 TONS BURDEN AND OVER, CLASSIFIED ACCORDING TO SIZE, BY DISTRICTS AND STATES.

. BY DISTRICTS.

STEAMERS.

8	00 то 400	TONS.	9	200 TO 800	TONS.	1	100 то 200	TONS.	l I	50 т о 100	TONS.	İ	5 то 50 т	rons.
Num- ber.	Tonnage.	Valuation.	Num- ber.	Tonnage.	Valuation.	Num- ber.	Tonnage.	Valuation.	Num- ber.	Tonnage.	Valuation.	Num- ber.	Tonnage.	Valuation.
100	35, 166	\$2, 822, 170	127	31,587	\$2,615,480	417	57, 977	\$ 7, 208, 855	516	36, 646	\$ 5, 782, 980	1, 203	32, 181	\$5, 711, 175
1 7	393 2, 490	35, 000 268, 000	5	1, 354 1, 004	122, 000 96, 400	19 28	2, 759 3, 946	321, 800 531, 800	23 41	1, 513 2, 887	209, 400 442, 420	08 128	1, 951 3, 542	298, 950 650, 730
39 26 11	13, 575 9, 482 3, 684	1, 367, 470 575, 800 276, 000	54 25 10	13, 048 6, 346 2, 562	1, 370, 930 527, 500 170, 500	224 38 16	31, 243 5, 233 2, 170	4, 057, 800 729, 900 353, 055	249 57 27	17, 610 4, 191 1, 944	3, 092, 460 708, 800 341, 350	500 146 103	13, 735 4, 062 2, 563	2, 632, 800 800, 850 349, 545
3	1, 029 2, 322	77, 000 132, 900	6 10	1, 538 2, 589	101, 200 90, 100	30 23	3, 922 3, 042	260, 100 398, 400	34 43	2, 398 3, 057	262, 800 370, 050	75 85	1,722 2,132	259, 700 364, 600
3	717 1, 123 351	29, 000 46, 000 15, 000	10 2	2, 448 456 242	103, 650 15, 000 18, 200	22 28 3 9	3, 931 469 1, 262	356, 000 70, 000 130, 000	24 13	1, 758 911 377	230, 400 86, 800 38, 500	61 15 22	1, 602 333 539	233, 700 41, 000 79, 300

SAILING VESSELS.

334	117, 987	3, 662, 891	375	93, 665	2, 693, 340	800	113, 441	3, 794, 350	1, 283	85, 895	3, 775, 765	3, 176	69, 566	3, 911, 605	1
77 75 91 77 5	27, 364 26, 466 31, 956 27, 486 1, 728	957, 816 740, 170 1, 004, 155 812, 750 56, 500	123 61 91 84 3	30, 569 15, 435 22, 651 20, 991 755	883; 350 402, 035 642, 570 609, 900 17, 000	375 103 176 86 33	52, 477 14, 921 25, 470 12, 733 4, 321	1, 389, 140 547, 775 1, 142, 385 429, 950 165, 050	372 123 429 96 189	25. 947 8, 823 27, 271 6, 448 12, 551	608, 790 487, 865 1, 650, 850 335, 310 437, 550	388 299 910 230 280	10, 293 5, 716 23, 105 5, 310 7, 637	244, 855 530, 880 1, 639, 045 286, 575 296, 440	4
1	1, 350 1, 301 336	50, 500 38, 000 3, 000	4 2 5	1, 015 508 1, 167	37, 300 20, 000 58, 800 22, 385	12 2 8 2 3	1, 451 262 1, 128 284 394	56, 100 .5, 500 47, 800 9, 500 1, 150	28 10 14 8 14	1, 987 684 938 521 725	102, 800 49, 500 48, 800 21, 600 32, 700	237 279 212 204 137	3, 696 4, 806 3, 923 3, 442 1, 638	151, 310 281, 925 208, 960 163, 230 108, 355	8

BY STATES.

STEAMERS.

			. — —			. —									
100	35, 166	2, 822, 170	127	31, 587	2, 615, 480	417	57, 977	7, 208, 855	516	36, 646	5, 782, 980	1, 203	32, 181	5,711,175	1
1	393	35, 000	5	1, 354	122, 000	18	2, 580 179	316, 800 5, 000	22	1,445	196, 400 13, 000	62	1,802	269, 550 29, 400	2
4 3	1, 444 1, 046	143, 000 125, 000	2 2	521 483	61, 400 35, 000	2 <u>1</u>	3, 119 827	441, 300 90, 500	33 8	2, 298 589	327, 920 114, 500	96 32	2, 768 774	473, 530 177, 200	4 5
4	1, 336	86,000	10	2, 442	212, 200	28	3, 921	519, 350	11	742	98, 500	51	1, 294	210, 850	6
32 10	11, 1 97 3, 659	1, 198, 470 359, 000	39 10 17	9, 402 2, 543	1, 062, 230 172, 400	174 29 28 3	24, 197 4, 148	8, 164, 350 444, 100	220 31	15, 543 2, 309	2, 745, 960 349, 800	421 52	11, 706 1, 376	2, 309, 200 229, 900	7 8
17 2	6, 097 768	259, 800 40, 000	17	4, 271 736	405, 200 46, 400	28	3, 832 378	613, 800 46, 100	40	2, 916 291	534, 000 73, 000	104 18	2, 901 520	549, 000 134, 700	10
8	2, 680	216, 000	6	1,502	112, 500	16	2, 170	853, 055	18	1, 331	251, 500	74	1,808	258, 445	ii
3	1,004	60, 000	3	853 971	43, 000 60, 000	18	2, 328	149 500	5 24	337 1, 637	54, 600 221, 750	22 49	554 1, 219	78, 400 175, 900	12 13
3	1,029	77, 000	3	774 1, 022	56, 200	12	1,594	148, 500 111, 600	. 14	1,037	76, 300	3.3	704	96, 500	14
3	975 1,040	73, 000 34, 900	4	1, 022 1, 567	52, 100 38, 000	6 8	897 1,063	109, 700 129, 800	17	1, 193 586	156, 000 90 , 000	26 23	599 667	113, 100 121, 650	15 16
1				·		1	! ' !				•				[
1 1	307 335	25, 000 9, 000	3 7	762 1, 686	29, 500 74, 150	24 11	3, 222 1, 659	351, 200 1 158, 700	30 10	2, 173 698	240, 750 82, 700	71 20	1, 734 537	256. 550 70, 100	17 18
i	382	20,000				1	132	5, (00	2	165	31,000	6	197	36, 900	19
3	1, 123 351	46, 000 15, 000	2	456 242	15, 000 18, 200	3 9	1, 262	70, 000 130, 000	13	911 377	86, 800 38, 500	15 22	333 539	41, 000 79, 300	20
1	331	15, 000		242	16, 200		1, 202	130, 603	, ,	311	38,300		0.00	10,000	

SAILING VESSELS.

334	117, 987	3, 662, 891	375	93, 665	2, 693, 340	800	113, 441	3, 794, 350	1, 283	85, 895	3, 775, 765	3, 176	69, 566	3, 911, 605	1
75 2 69 6 20	26, 646 718 24, 331 2, 135 6, 910	897, 816 60, 000 660, 970 79, 200 256, 790	120 3 50 11 10	29, 774 795 12, 524 2, 911 2, 641	848, 250 35, 000 334, 685 67, 350 79, 000	372 3 95 8 47	52, 037 440 13, 783 1, 138 6, 714	1, 370, 940 18, 200 407, 685 140, 690 236, 130	362 10 114 9 55	25, 294 653 8, 102 721 4, 112	589, 390 19, 400 427, 165 60, 700 129, 540	380 8 237 62 100	10, 693 200 4, 675 1, 041 1, 614	238, 975 5, 880 415, 600 115, 280 91, 930	
68 21 56 3 5	23, 994 7, 614 19, 916 1, 008 1, 728	714, 240 267, 125 523, 750 55, 000 56, 500	75 37 44 9 3	18, 556 9, 262 10, 889 2, 394 755	522, 070 274, 000 280, 600 96, 800 17, 000	117 42 29 27 31	16, 945 6, 130 4, 518 3, 896 3, 940	866, 855 153, 250 170, 200 145, 900 154, 250	348 59 25 37 172	21, 446 3, 870 1, 682 2, 541 11, 493	1, 435, 850 167, 095 120, 300 129, 375 402, 150	717 233 46 42 215	18, 914 5, 408 1, 157 1, 285 6, 196	1, 429, 455 241, 895 95, 030 65, 760 246, 530	7 8 9 10 11
3 1	1, 015 835	43, 000 7, 500	4	915	37, 300	1 8 5	188 1,093 551	7, 000 38, 400 21, 500	9 22 15	578 1, 459 1, 076 233	18, 100 69, 700 54, 400 14, 000	45 74 185 143	823 1, 738 2, 613 2, 261	28, 210 71, 240 103, 320 122, 350	12 13 14 15
2	670 631	20, 000 18, 000	2	508	20, 000	4	545	11,500	3	212 472	20, 000 34, 050	53 181	1, 220 2, 872	66, 350 170, 975	16
i	836	3, 000	1 4	225 942	8, 800 50, 000		845 284	41, 800 9, 500	6 4 8	381 324 521	13, 350 16, 900 21, 600	26 88 204	436 1, 940 3, 442	16, 860 114, 350 163, 260	18 19 20
••••			2	574	22, 385	3	394	1, 150	14	725	32, 700	137	1,608	108, 355	21

EQUIPMENT, OCCUPATION, AND CONSTRUCTION—Continued.

TABLE 3.—EQUIPMENT OF FLEETS BY CLASSIFIED OCCUPATIONS—NUMBER, TONNAGE, AND VALUATION OF ALL STEAMERS, SAILING VESSELS, AND UNRIGGED CRAFT OF 5 TONS BURDEN AND OVER, BY OCCUPATIONS.

										st	EAMERS.					
		7	TOTAL.			Passeng	ger and freig	ght.			lowing.		1.		Ferry.	
DISTRICTS.	Num- ber.	Tonnage.	Valuation.	Average value per ton.	Num- ber.		Valuation	Average value per ton.	Num- ber.	Ton- nage.	Valuation	Aver- age value per ton	Num- ber.	Ton- nage.	Valuatio	Average n. value per ton.
Total	13, 466	2, 862, 630	\$127, 676, 487	\$44.60	810	487, 939	\$36, 989, 280	\$75.81	1,095	61, 359	\$10, 203, 33	≱166. 29	214	98, 174	\$7, 907, 7 0	0 \$80.
1. Portland 2. Boston 3. New York 4. Philadelphia 5. Baltimore 6. Norfolk 7. Savannah 8. Mobile 9. New Orleans 9. Galveston	5, 205 1, 556 922 561 780 480	504. 196 458, 806 1, 205, 684 382, 835 138, 443 32, 077 63, 627 28, 847 36, 304 12, 411	16. 587, 367 19, 466, 030 60, 538, 535 15, 051, 700 7, 046, 760 1, 627, 025 3, 507, 800 1, 440, 220 1, 910, 060 500, 990	50. 21 39. 32 50. 90 50. 72 55. 66 49. 93 52. 61	56 82 285 112 84 55 66 44 18	:215, 090	1, 674, 350 6, 502, 620 17, 096, 460 4, 902, 200 3, 783, 750 485, 000 1, 805, 700 367, 400 317, 300 54, 500	75, 24 79, 49 80, 23 65, 73 71, 23 67, 42 55, 90 49, 56	49 83 536 124 103 58 64 53 14	2,782 4,412 35,122 5,857 4,038 2,114 3,332 2,741 560 461	395, 90 702, 58 5, 886, 50 1, 123, 00 698, 90 317, 60 526, 35 415, 00 61, 50 76, 00	159. 24 167. 60 191. 74 0 173. 08 0 150. 24 0 157. 97 0 151. 40 0 123. 00	15 142 26 9 3 9	735 5, 367 78, 407 9, 491 1, 791 1, 268 1, 037	102, 50 365, 28 6, 363, 42 828, 50 86, 50 88, 00 61, 50	0 68.0 0 81. 0 87.1 0 48.1 0 69.
	<u> </u>		<u> </u>				1	MERS—CO			1	1	<u> </u>			
		, x	achts.				Harbor.				cellaneous.			No tra	ıffic repor	t.
DISTRICTS.	Num- ber.	Tounage.	Valuation.	Average value per ton.	Number.	Ton- nage.	Valuation	Average value per ton.	Num- ber.	Ton- nage.	Valuation	Aver- age value per ton	Num- ber.		Valuatio	Aver age n. value per ton.
Total	170	11, 328	\$3, 520, 610	\$310.79	94	13,843	\$ 1, 446 , 150	\$104.47	153	69, 127	\$5, 451, 570	\$78.86	397	95, 392	\$8,035,90	0 \$84.2
Portland Boston New York Philadelphia Baltimore Norfolk Savannah Mobile	2 36 100 13 4 1 7	43 1, 856 8, 215 529 331 42 154 83	11, 500 469, 300 2, 723, 610 165, 700 87, 000 5, 000 41, 500 8, 800	267. 44 252. 86 331. 54 313. 23 262. 84 119. 05 269. 48 106. 02	2 11 61 2 3 4 4	324 951 8, 844 470 1, 728 169 171	75, 000 102, 250 860, 900 53, 500 187, 000 17, 500 30, 000	107. 52 97. 34 113. 83 108. 22 103. 55	1 4 98 16 5 10 4	408 1, 334 40, 740 2, 872 1, 713 1, 389 104	15, 000 124, 000 3, 603, 170 366, 800 156, 500 68, 000 18, 600	92. 95 88. 44 127. 72 91. 36 48. 96 178. 85	62 21 23	2, 148 7, 941 56, 453 10, 747 4, 593 1, 759 5, 542 2, 016	236, 90 767, 10 4, 439, 00 1, 152, 55 355, 40 188, 50 475, 20 176, 55	96. 6 0 78. 6 0 107. 2 0 77. 3 0 107. 1 0 85. 7
D. New Orleans D. Galveston	3	75	8, 200	109. 33	2 5	249 937	40, 000 80, 000		14	20, 519 48	1, 082, 000 17, 500		, 7	3, 659 534	199, 90 44, 80	0 54.6
								SAILIN	VESSE	us.						
DISTRICTS.			Fre	eight.		,		н	arbor.					Yachts		
		Num- ber.	Tonuago.	Valuatio	n. j	verage value er ton.	Num- ber.	onnage.	Valu	ation.	Average value per ton.	Num-	Tonnage	o. Val	nation.	Average value per ton
Total		5, 229	1, 260, 362	¢38, 777, 6	327	\$00. 77	368	15, 849	\$1,1	51, 540	\$72.66	628	14, 42	8 \$2,	681, 455	\$185. I
1. Portland 2. Boston 3. New York 4. Philadelphia 5. Baltimore 6. Norfolk 7. Savannah 8. Mobile 9. New Orleaus 9. Gleveston		. 1, 213 . 563 . 456 . 187 . 185 . 156	430, 961 285, 700 343, 808 138, 404 37, 361 6, 802 6, 164 5, 674 3, 557 1, 851	12, 919, 6 8, 273, 8 10, 672, 1 4, 576, 9 1, 317, 6 253, 8 244, 245, 1 159, 4 115, 1	500 110 240 320 980 180 160	29, 98 28, 96 31, 04 33, 07 35, 27 37, 34 39, 61 43, 21 44, 82 62, 19	11 32 226 8 4 9 42 25 5 6	214 1, 474 11, 038 466 218 451 1, 238 559 54 137	1	5, 410 53, 150 72, 850 84, 000 11, 700 47, 700 24, 720 39, 250 2, 860 9, 900	25. 28 103. 90 60. 96 180. 26 53. 67 105. 76 100. 74 70. 21 52. 96 72. 26	31 175 319 56 9 2 9 10 3 14	11	22 57 16 14 15 15 18 14	35, 690 740, 405 764, 085 102, 040 9, 820 1, 250 6, 500 8, 350 2, 250 11, 065	85. 179. (211. (110, 150, 150, 150, 150, 150, 150, 150,
					SAILIN	G VESSE	LS—continu	ed.			<u> </u>		UNR	IGGED C	RAFT.	
DISTRICTS.			Miscel	laneous.	_			No tra	ffic rep	ort.			τ	nclassifi	ed.	
		Num- ber.	Tonnage.	Valuatio	n.	verage value er ton.	Num- ber, T	onnage.	Valua	ation.	Average value per ton.	Num- ber.	Tonnage	o. Val	uation.	Averngo valuo per ton
Totál	••••	. 52	2,553	\$75.	360	\$ 29. 52	831	108, 793	\$3,5	98, 525	\$33, 08	3, 425	623, 48	3 \$7,	837, 440	\$12.5
1. Portland		. 1 28 . 10 . 1 . 1	47 46 1, 186 1, 135 19 8 59	1, 5 45 20, 8 1, 5	500 500 48J 300 500 130	18. 09 32. 61 38. 35 18. 33 78. 95 16. 25 42. 37	110 114 231 68 63 87 58	28, 929 23, 478 38, 255 6, 718 2, 813 2, 721 853	7 1, 1 2 1	16, 865 78, 670 77, 280 54, 420 25, 420 10, 700 43, 025 36, 400	31. 69 33. 17 30. 77 37. 87 44. 59 40. 68 50. 44 40. 79	155 214 1, 812 496 160 121 292 111	16, 68 35, 69 360, 10 144, 12 26, 15 8, 52 17, 47	06 19 5,21 1,52 10 14	197, 795 485, 675 233, 670 421, 250 225, 660 43, 665 128, 025 43, 310	11. 1 13. (14. ! 9. ! 8. (5. ! 7. :
R. Mobile D. New Orleans O. Galveston		. 2	15 (18	1, 1 1, 5	100	73, 33 39, 47	52 36 12	3, 344 532 1, 100		36, 400 † 28, 730 27, 015	49, 36 24, 56	13 51	7, 76 65 6, 30	ю [43, 310 3, 000 55, 400	4.0 8.1

Table 4.—OWNERSHIP BY CLASSES—NUMBER, TONNAGE, AND VALUATION OF ALL STEAMERS AND SAILING VESSELS ALLOTTED RESPECTIVELY TO INDIVIDUAL, JOINT STOCK, AND CORPORATE OWNERS.

ALL STEAMERS AND SAILING VESSELS.

	т	OTAL.		NUMBER	AND TONN	AGE BY OW:	ERSHIP.		VALUAT	ON BY OWN	ЕКВНІР.
districts	N			vidual.	Joint	stock.	Corp	orate.			
	Number.	Tonnage.	'	Tonnage.	Number.	Tounage.	Number.	Tonnage.	Individual.	Joint stock.	Corporate.
Steam and sail	9, 151	2, 061, 323	7, 904	1, 404, 883	215	75, 827	1.032	•	\$60, 509, 762	•	\$43, 768, 790
Steam	2, 626 6, 525	758, 577 1, 302, 746	1, 548 6, 356	156, 974 1, 247, 909	148 67	46, 488 29, 339	930 102	555, 115	18, 905, 530 41, 604, 232	4, 255, 700	

STEAMERS.

PASSENGER AND FREIGHT.

Total	810	487, 939	324	62, 510	82	38, 143	404	387, 286	5, 371, 470	3, 284, 000	28, 333, 810
1. Portland 2. Boston 3. New York 4. Philadelphia. 5. Baltimore	56 82 285 112 84	20, 478 86, 429 215, 090 61, 099 57, 562	20 15 103 32 26	1, 810 2, 578 25, 202 6, 545 8, 136	1 .	241 46 27, 136 1, 037 5, 847	32 66 139 72 47	18, 427 83, 805 162, 752 53, 517 43, 579	149, 350 278, 720 1, 905, 150 424, 100 1, 670, 500	30, 000 7, 000 2, 611, 000 138, 000 280, 000	1, 495, 000 6, 216, 900 12, 580, 310 4, 340, 100 1, 833, 250
6. Norfolk 7. Savannah 8. Mobile 9. New Orleans 10. Galveston	55 66 44 18 8	6, 809 26, 781 6, 573 6, 402 716	31 42 36 13 6	3, 212 6, 097 5, 596 2, 955 379	6 4 4 1	1, 402 1, 903 404 127	18 20 4 4 2	2, 195 18, 781 573 3, 320 337	211, 000 295, 950 275, 900 126, 300 34, 500	94, 500 60, 000 48, 500 15, 000	179, 500 1, 449, 750 43, 000 176, 000 20, 000

TOWING.

Total	1, 095	61, 359	796	35, 818	38	2, 795	261	22, 746	6, 154, 300	384, 000	3, 665, 030
1. Portland 2. Boston 3. New York 4. Philadelphia. 5. Baltimore	49 83 536 124 103	2, 782 4, 412 35, 122 5, 857 4, 038	27 41 383 104 85	1, 029 1, 682 18, 808 4, 555 2, 886	14 1 16	1, 438 15 1, 152	8 41 137 20	315 2,715 15,162 1,302 1,064	148, 400 246, 300 3, 274, 750 954, 000 466, 900	195, 500 5, 000 165, 500	52, 000 451, 280 2, 446, 250 169, 000 222, 000
6. Norfolk 7. Savannah 8. Mobile 9. New Orleans 10. Galveston	58 64 53 14 11	2, 114 3, 332 2, 741 500 461	48 51 38 13 6	1. 602 2. 441 2, 098 460 251	2 1	68 34	10 13 13	512 891 575	241, 300	5, 000 3, 000	76, 300 134, 000 81, 200

FERRY.

Total	214	98, 174	63	26, 945	13	3, 806	138	67, 423	2, 315, 970	375, 000	5, 216, 730
1. Portland 2. Boston 3. New York 4. Philadelphia	9 15 142 26	735 5, 367 78, 407 9, 491	4 8 43	83 3, 393 23, 265	1 12	136 3, 670	4 7 87 26	516 1,974 51,472 9,491	22, 000 199, 080 2, 066, 390		65, 500 166, 200 3, 937, 030 828, 500
5. Baltimore. 6 Norfolk. 7. Savannah.	9 3 9	1, 791 1, 268 1, 037	3	53			6 3 5	1,738 1,268 964	6, 500		80, 000 88, 000 51, 500
9. New Orleans	ĭ	78	i	78						:	

YACHTS.

Total	170	11, 328	160	10, 840	1	6	9	482	3, 390, 920	1, 200	128, 490
1. Portland 2. Boston 3. New York 4. Philadelphia 5. Baltimere	2 36 100 13 4	43 1, 856 8, 215 529 831	2 36 96 11 4	1,856	1 1	6	4 1		11, 500 469, 300 2, 617, 120 159, 500 87, 000	1, 200	
6. Norfolk	1 7 4 3	42 154 83 75	1 6 2 2	42 127 21 36			1 2 1	27 62 39	31, 500 3, 800		10, 000 5, 000

EQUIPMENT, OCCUPATION, AND CONSTRUCTION—Continued.

TABLE 4.—OWNERSHIP BY CLASSES—Continued.

STEAMERS—Continued.

	. то	TAL		NUMBER	AND TONN	AGE BY OW	NERSHIP.		VALUAT	MON BY OWN	ERSHIP.
DISTRICTS.			Indi	ividual.	Joint	stock.	Cor	porate.			
	Number.	Tonnage.	Number.	Tonnage.	Number.	Tonnage.	Number.	Tonnage.	Individual.	Joint stock.	Corporate
Total	94	13, 843	51	4,650	8	1, 121	35	8, 072	\$456, 650	\$117,000	\$872, 50
l. Portland 2. Boston	2 11	324 951		167			2 7	324 784	12, 750		75, 0
3. New York	61	8, 844	37	3, 660	4	662	20	4, 522	331, 400	52,000	89, 5: 477, 50
J. Philadelphia	2 ! 3 .	470 1, 728	1	126	,	••••••	2 2	470 1, 602	50,000		53, 50 137, 00
3. Norfolk	4	169	3	36	: 1 !	133		••••	7,500	10,000	
7. Savannah	4 2 .	171 249	4	171	······2				30,000	40,000	
. Galveston	5	937	2	490	ī	249 77	2	370	25, 000	15,000	40,00
				MISCELI	LANEOUS						
Total	153	69, 127	82	9, 239	. 1	214	70	59, 674	730, 220	45, 000	4, 676, 35
l. Portland	1	408					1	408			15, 00
Boston	98	1, 334 40, 740	1 61	40 7, 856		•••••	3 37	1, 294 32, 884	6, 000 587, 820		15, 00 118, 00 3, 015, 35
. Philadelphia	16	2,872	6	424 245	1	214	9 2	2, 234	82, 800 7, 000	45,000	239, 00
		1,713	3		:	•••••	•	1, 468			149, 50
Norfolk Savannah	10	1, 389 104	6	508 104		• • • • • • • • • • • • • • • • • • •	4	881	25, 000 18, 600	'	43, 00
. New Orleans	14 1	20, 519 48	1	62	!		13	20, 457 : 48	3,000		1, 079, 00 17, 50
			· I !	NO TRAFF		····					
Total	90	16, 807	72	6, 972	5	403	13		486, 000	49, 500	392, 00
Portland	3 2	716 21	2 1	41 7	······i	14	1	675	5, 000 1, 000	1,000	75, 0 0
. New York	43	9, 485	34	3, 680	2	277 62	7	5, 528	346, 100	40,000 1,000	167, 00
. Philadelphia	7	673 2, 906	8 4	611 800	1		3	2, 106	44, 950 18, 900	1,000	116, 00
. Norfolk	1	197	1	197			i		8, 000		
. Savannah	9 5	029 774	8 5	579 774	1	50	,·····	• • • • • • • • • • • • • • • • • • • •	24, 000 9, 750	7, 500	
New Orleans	4 7	1, 148 258	3	53 230			1 1	1, 095 28	10, 000 18, 300		82, 00 2, 00
. Garveston		206	<u> </u>	250	1		1		16, 300		2,00
				SAILING		s.					
				FRE	IGHT.				1		
Total	5, 229	1, 260, 362	5, 124	1. 209, 053	48	28, 181	57	23, 128	37, 423, 227	937, 350	417, 05
Portland Boston	1, 523 655	430, 981 285, 700	1, 497 626	411, 692 268, 033	22	18, 718	4 29	571 17, 667	12, 214, 107 7, 993, 300	687, 600	17, 90 280, 20
. New York	1, 213	343, 868	1, 187	333, 196	17	8, 403	9	2, 269	10, 413, 860	211, 250	47, 00
Philadelphia	563 456	138, 404 37, 361	555 454	136, 949 37, 104	2	74 215	6	1, 381 : 42	4, 549, 040 1, 308, 620	4, 200 6, 000	23, 70 3, 00
. Norfolk	187	6, 802	185	6, 393			2	409	241, 480		12, 50
. Savannah	185	6, 164 5, 674	185	6, 164					244, 180	90 900	
. Mobile	156 168	8, 557	144 168	4, 114 3, 557	6	771	6	789	184, 110 159, 420	28, 300	32, 75
Galveston	123	1, 851	123	1, 851					115, 110		••••
			•	HAR	BOR.						

Total	368	15, 849	332	14, 176	15	884	21	789	1, 072, 790	47, 300	81, 450
1. Portland	11 32	214 1, 474	11 32	214 1, 474					5, 410 153, 150		
3. New York	226 8	11, 038 466	198 8	9, 635 466	11	680		723	618, 000 84, 000		25, 150
5, Baltimore	4	218 451	4	218 387		64			11, 700 46, 700	1,000	
6. Norfolk	42 25	1, 238 559	42 22	1, 238 447	2	96	1	16	124, 720 23, 250		1,000
9. New Orleans	5	54 137	5 2	54 43	1	44	3	50	2, 860 3, 000	1,600	5, 300

TABLE 4.—OWNERSHIP BY CLASSES—Continued.

SAILING VESSELS—Continued.

YACHTS.

	TO	TAL.		NUMBER	AND TONN	AGE BY OWN	ERSHIP.	i	VALUAT	ION BA OMN	ERSHIP.
DISTRICTS.				vidual.	Joint	stock.	Corp	porate.			
	Number.	Tonnage.	Number.	Tonnage.	Number.	Tonnage.	Number.	Tonnage.	Individual.	Joint stock.	. Corporate.
Total	628	14, 428	626	14, 406	1	10	1	12	\$2, 678, 955		\$2,000
1. Portland	31 175	418 4, 122	31 175	418 4, 122					35, 690		
3. New York		8, 357 9 26	318 56	8, 345 926			1	12	1, 762, 085 102, 040		2,00
5. Baltimore 6. Norfolk	9	124 25	9 2	124 25					9, 820		
7. Savannah	10	118 94	8 10	108 94	1				6, 000 8, 350	500	
9. New Orleans	3 14	39 205	3 14	205					2, 250 11, 065		

MISCELLANEOUS.

Total	52	2, 553	28	941	1	43	. 23	1, 569	37, 980	4, 000	33, 380
1. Portland	3	47 46	3 1						850 1, 500		
3. New York 4. Philadelphia 5. Baltimore	28 10 1	1, 186 1, 135 19	14	709	1	43	14 9	477 1, 092		4, 000	16, 800
6. Norfolk	1	8 59	1 5	8					130 2,500		
9. New ()rleans	2 1	15 38	2	15					1, 100 1, 500		

NO TRAFFIC REPORT.

Total	248	9, 554	246	9, 333	2	. 221		391, 280	5, 900
1. Portland	23	941	23	941				22, 110	
2. Boston 3. New York 4. Philadelphia	24 107 22	1, 110 3, 341 1, 46 8	24 106 22	3, 175	1	166		. 123, 990	5, 000
5. Baltimore	16	1, 113	16						
6. Norfolk	12 16	224 252	12 16	224 252		¹		14, 400	
8. Mobile	9	437 142 526	8 10	87	1	55		3, 830	
10. Galveston	10	520	10	526			<u> </u>	4, 630	

TABLE 5.—OWNERSHIP BY LOCALITIES—NUMBER, TONNAGE, AND VALUATION OF ALL STEAMERS AND SAILING VESSELS ALLOTTED RESPECTIVELY TO INDIVIDUAL, JOINT STOCK, AND CORPORATE OWNERS.

ALL STEAMERS AND SAILING VESSELS.

		1								
Number.	Tonnage.	Indi	ridual.	Joint	stock.	Corp	orate.	Individual	Joint stock.	Corporate
		Number.	Tonnage.	Number.	Tonnage.	Number.	Tonnage.		_	
9, 151	2, 061, 323	7,904	1, 404, 883	215	75, 827	1, 032	580, 613	\$60, 509, 762	\$5, 250, 750	\$43, 768, 79
2, 626 6, 525	758, 577 1, 302, 746	1, 548 6, 356	156, 974 1, 247, 909	148 67	46, 488 29, 339	930 102	555, 115 25, 498	18, 905, 530 41, 604, 232	4, 255, 700 995, 050	43, 284, 916 483, 88
		••	STE	AMERS.						
122	25, 486	55	3, 006	19	1, 815	48	20, 665	336, 250	240, 500	1, 777, 500
56 49 9	20, 478 2, 782 735 43	20 27 4 2	1, 810 1, 029 83 43	14 14 1	241 1, 438 136	32 8 4	18, 427 315 516	149, 350 148, 400 22, 000 11, 500	30, 000 195, 500 15, 000	1, 495, 000 52, 000 65, 500
1 3	408 716	2	41			1 1	324 408 675			75, 000 15, 000 75, 000
233	100, 370	106	9, 723	3	73	124	90, 572	1, 213, 150	13, 060	7, 041, 881
82 83 15	86, 429 4, 412 5, 367	15 41 8	2, 578 1, 682 3, 393	1 1	46 15	66 41 7	83, 805 2, 715 1, 974	278, 720 246, 300 199, 080	7, 000 5, 000	6, 216, 936 451, 28J 166, 200
11 4 2	951 1, 334 21	1	167 40 7			7 3	784 1, 294			89, 500 118, 00 0
1, 265	395, 903	757	90, 349	77	32, 897	431	272, 657	11, 128, 730	3, 228, 500	22, 729, 930
285 536 142 100 61 98 43	215, 090 35, 122 78, 407 8, 215 8, 844 40, 740 9, 485	103 383 43 96 37 61	25, 202 18, 808 23, 265 7, 878 3, 660 7, 856 3, 680	43 16 12 4	27, 136 1, 152 3, 670 662	139 137 87 4 20 37	162, 752 15, 162 51, 472 337 4, 522 32, 884 5, 528	1, 905, 150 3, 274, 750 2, 006, 390 2, 617, 120 331, 400 587, 820 346, 100	2, 611, 000 165, 500 360, 000 52, 000 40, 000	12, 580, 310 2, 446, 250 3, 937, 030 106, 490 477, 500 3, 015, 350 167, 000
302	80, 9 91	161	12, 641	11	1,319	130	67, 031	1, 665, 350	185, 200	5, 635, 100
112 124	61, 099 5, 857	32 104	6, 545 4, 555	8	1, 037	72 20	53, 517 1, 302	424, 100 954, 000	138, 000	4, 340, 100 169, 000
13 2 16	529 470 2,872	11	506 424 611	1	214 62	26 1 2 9	9, 491 17 470 2, 234	159, 500 82, 800 44, 950	1, 200 45, 000 1,000	828, 500 5, 000 53, 500 239 , 000
		!	1			74	51 557	'		2, 537, 750
84 103 9	57, 562 4, 038 1, 791	26 85 3	8, 136 2, 886 53	11 4	5, 847 88	47 14 6	43, 579 1, 064 1, 738	1, 670, 500 466, 900 6, 500		1, 833, 250 222, 000 80, 000
3 5 7	1, 728 1, 713 2, 906	1 3 4	126 245 800			2 2 3	1, 602 1, 468 2, 106	50, 000 7, 000 18, 900		137, 000 1 49 , 500 116, 000
132	11,988	90	5, 597		1, 535	35	4,856	497, 800	104, 500	386, 800
55 58 3 1	6, 809 2, 114 1, 268 42	31 48	3, 212 1, 602	6		18 10 3	2, 195 512 1, 268	211,000 241,300 5,000	94,500	179, 500 76, 300 88, 000
10	1, 389 197	6	508 197		133	4	881	25, 000 8, 000	10,000	43, 000
163	32, 208	119	9, 592	5	1, 953	39	20, 663	802, 400	67, 500	1, 645, 250
66 64 9 7 4	26, 781 3, 332 1, 037 154 171 104	42 51 4 6 4	6, 097 2, 441 73 127 171 104		·····	20 13 5 1	18, 781 891 964 27	10,000 31,500 30,000 18,600	7, 500	1, 449, 750 134, 000 51, 500 10, 000
ľ		1			!	19	1. 210	1		129, 200
\\ \frac{44}{53}	6, 573 2, 741	36 38	5, 596 2, 098	4 2	404 68	4	573 575	275, 900 328, 800	48, 500 5, 000	43, 000 81, 200 5, 000
	9,151 2,626 6,525 122 56 49 9 2 2 1 3 233 82 82 83 15 36 111 4 4 2 1,265 285 536 141 2 100 61 18 43 302 112 124 26 13 302 112 124 26 13 302 112 14 103 9 4 4 103 9 116 9 116 9 116 9 117 118 118 118 119 119 119 119 119 119 119	2, 626	Number. Tonnage. 9, 151	Number. Tonnage. 9, 151 2,061, 323 7,904 1,404, 883 2,622 758,577 1,548 156, 974 6,525 1,302,746 0,356 1,247,909 STE 122 25,486 55 3,006 56 20,478 20 1,810 49 2,782 27 1,029 9 735 4 83 2 43 2 43 2 43 2 44 168 3 36 1,856 11 408 3 41 41 41 6,82 35 4 41 1,682 35 122 334 1 400 2 21 1 7 7 1,265 395,903 757 90,349 285 215,090 103 25,202 356 35,122 383 18,808 142 78,407 43 23,265 100 8,215 96 7,878 61 8,844 37 3,660 98 40,740 61 7,850 43 9,485 34 3,680 302 80,991 161 12,641 122 11 506 2,773 84 5,857 104 4,555 26 470 13 5,29 11 506 2,872 6 424 5,857 104 4,555 36 1,791 3 3,31 4 3,31 3 4 3,31 3 4 3,31 3 4 3,31 3 4 3,31 3 4 3,31 3 4 3,31 3 4 3,31 3 4 3,31 3 4 3,31 3 4 3,31 3 4 3,31 3 3,31 4 3,31 3 3,31 4 3,31 3 3,31 3 3,31 3 3,31 3 3,31 3 3,31 3 3,31	Number. Tonnage. Number. Tonnage. Number. 1,404,883 215 2,226 758,577 1,548 156,974 148 6,525 1,302,746 6,356 1,247,909 67 124	Number. Tonnage. Number. Tonnage. Number. Tonnage. Number. Tonnage.	Number. Tonnage. Tonnage.	Number. Tonnage Number. Tonn	Number: Tonnage. Number: Tonnage. Number: Tonnage. Number: Tonnage.	Number Tonnage Number Tonnage Number Tonnage Individual Joint stock

TABLE 5.—OWNERSHIP BY LOCALITIES—Continued.

STEAMERS-Continued.

	то	TAL.		NUMBER	AND TONE	AGE BY OW	NERSHIP.		VALUAT	rion by own	ERSHIP.
DISTRICTS AND CLASSES.			Indi	vidual.	Join	t stock.	Cor	porate.	!	!	
	Number.	Tonnage.	Number.	Tonnage.	Number.	Tonnage.	Number.	Tonnage.	Individual.	Joint stock.	Corporate.
District 9—New Orleans	53	28, 896	31	3, 614	4	410	18	24, 872	\$209, 800	\$58,000	\$1, 287, 000
Passenger and freight Towing	18	6, 402 500	13 13	2, 955 466	1	127 34	4	3, 320	126, 300 58, 500	15, 000 3, 000	176, 000
Ferry	1 2	78 249	1	78	······2	240			12, 000		
Miscellaneous	14	20, 519 1, 148	1 3	62 53			13 1	20, 457 1, 095	3,000		1, 079, 000 32, 000
District 10—Galveston	35	2, 495	22	1, 386	1	77	12	1,032	127, 000	15, 000	114, 500
Passenger and freight Towing	8 11	716 461	6	379 251			2 5	337 210			20, 000 33, 000
Yachts	3 5	75 937	2 2	36 490	1		1 2	39 370		·	2,000 40,000
Miscellaneous	1 7	48 258	6				1	48 28		10,000	17, 500 2, 000
	<u>'</u>		•	SAILING	VESSELS	•	li.			·	
District 1—Portland	1, 591	432, 601	1, 565	413, 312	22	18, 718	4	571	12, 278, 167	687, 600	17, 900
Freight	1, 523	430, 981	1, 497	411, 692 214	22		4	571	12. 214, 107		17, 900
Harbor Yachts	11 31	214 418	11 31	418	,			· · · · · · · · · · · · · · · · · · ·	35, 690	!	
Miscellaneous No traffic report	23 23	47 941	3 23	47 941	i		' ,			·	
District 2—Boston	887	292, 452	858	274, 785			29	17, 667	8, 947, 405		280, 200
Freight	655 32	285, 700 1, 474	626 32	268, 033 1, 474				17, 667	7, 993, 300 153, 150		
Yachts	175	4, 122	175	4, 122					740, 405		
Miscellaneous No traffic report	24	46 1, 110	24	46 1, 110				•••••	1, 500 59, 050		
District 3—New York	1, 693	367, 790	1, 823	355, 060	29	9, 249	41	3, 481	12, 946, 835	245, 950	90, 730
Freight	1, 213 226	343, 868 11, 038	1, 187 198	333, 196 9, 635	17 11	8, 403 680	9	2, 269 723	10, 413, 860 618, 000	211, 250 29, 700	47, 000 25, 150
Yachts	319 28	8, 357 1, 186	318 14	8, 345 709			1 14	12 477	1, 762, 085 28, 900		2, 000 16, 580
No traffic report	107	3, 341	106	3, 175	1	166			123, 990	5, 000	
District 4—Philadelphia	659	142, 399	641	139, 809	3	117	15	2, 473	4, 815, 730	8, 200	40, 500
Freignt	563 8	138, 404 466	555 8	136, 949 466	2	74	6	1, 381	4, 549, 040 84, 000	4, 200	23, 700
Yachts	56 10	926 1, 135	56	926	······	43	9	1, 092	102, 040	4, 000	16, 800
No traffic report	22	1,468	. 22	1,468					80, 650		
District 5—Baltimore	486	38, 835	484	38, 578	1	215	1	42	1, 382, 960	6, 000	3,000
Freight	456 4	37, 361 218	454	37, 104 218	1	215	i 1	42	1, 308, 620	6,000	
Yachts	9	124 19	9	124 19]			• • • • • • • • • • • • • • • • • • • •	9, 820	·	
No traffic report	1Ĝ	1, 113	16	1, 113	1,						
District 6—Norfolk	211	7, 510	208	7, 037	1	64	2	409	297, 260	1,000	12, 500
Freight	187	6, 802 451	185 8	6, 393 387	i	64	2	409	241, 480 46, 700	1.000	12, 500
Yachts Miscellaneous	2	25 8	2	25 8	<u>'</u>				1, 250		
No traffic report	12	224	12	224							
District 7—Savannah	257	7, 831	256	7, 821		10			391, 800	500	
Freight	185 42	6, 164 1, 238	185 42	6, 164 1, 238							
Yachta Miscellaneous	9 5	118 59	8 5	108	1	10			6,000		
No traffic report	16	252	16	252				•••••••••			
District 8—Mobile	200	6, 764	185	5,092	8	867	7	805	239, 310	43, 300	33, 750
Freight	156 ·25	5, 674 559	144 22	4, 114 447	6	771 96	6 1	789 16	184, 110 23, 250	28, 300 15, 000	32, 750 1, 000
Yachta	10	94	10	94							

EQUIPMENT, OCCUPATION, AND CONSTRUCTION—Continued.

TABLE 5.—OWNERSHIP BY LOCALITIES—Continued.

SAILING VESSELS—Continued.

	TO	TAL.	•	NUMBER	AND TOWN	AGE BY OWN	ership.		VALUA	TION BY OWN	ERSHIP.
DISTRICTS AND CLASSES.			Indi	vidual.	Joint	t stock.	Cor	porate.			
	Number.	Tonnage.	Number.	Tonnage.	Number.	Tonnage.	Number.	Tonnage.	Individual.	Joint stock.	Corporate.
District 9—New Orleans	187	3, 807	186	3, 752	1	55			\$169, 460	\$800	
Freight Harbor Yachts Miscollaneous	168 5 3 2	3, 557 54 39 15 142	168 5 3 2	3, 557 54 39 15					2, 250	900	
No traffic report District 10—Galveston	154	2, 757	150	2, 663	1	44	3	50	135, 305	1,600	\$ 5, 300
Freight	123 6 14 1 10	1, 851 137 205 38 526	123 2 14 1	1, 851 43 205 38 526					3,000		5, 300

TABLE 6.—CONSTRUCTION BY CLASSES—NUMBER, TONNAGE, AND VALUATION OF ALL STEAMERS AND SAILING-VESSELS ALLOTTED RESPECTIVELY TO THEIR MATERIALS OF CONSTRUCTION.

ALL STEAMERS AND SAILING VESSELS.

	TC	TAL.	NUMB	ER AND TON	NAGE BY	MATERIALS :	OF CONST	BUCTION.	VALUATIO	N BY MATERI	ALS OF CONS	TRUCTION.
DISTRICTS. Number.		v	Vood.	Con	nposite.	Iron	and steel.					
		Tonnage.	Num- ber.	Tonnage.	Num- ber.	Tonnage.	Num- ber.	Tonnage.	Total valuation.	Wood.	Composite.	Iron and steel.
Total	10,041	2, 239, 147	9, 477	1, 801, 088	90	24, 604	474	413, 455	\$119, 839, 047	\$80, 915, 897	\$1, 183, 120	\$37,740,030
Steam	2, 933 7, 108	837, 162 1, 401, 985	2, 448 7, 029	427, 560 1, 373, 528	24 66	5, 365 19, 239	461 13	404, 237 9, 218	73, 554, 540 46, 284, 507	35, 991, 510 44, 924, 387	547, 800 685, 820	37, 015, 230 724, 800

STEAMERS.

PASSENGER AND FREIGHT.

Total	810	487, 939	612	229, 165	10	4, 317	188	254, 457	36, 989, 280	14, 988, 470	280, 000	21, 720, 810
1. Portland 2. Boston 3. New York 4. Philadelphia 5. Baltimore	56 82 285 112 84	20, 478 86, 429 215, 090 61, 099 57, 562	56 67 205 70 51	20, 478 53, 100 82, 778 25, 250 24, 580	3 3 2	1, 536 988 1, 227	15 77 39 31	33, 329 130, 776 34, 861 31, 805	1, 674, 250 6, 502, 620 17, 096, 460 4, 902, 200 8, 783, 750	1, 674, 350 8, 119, 120 5, 727, 650 1, 700, 200 1, 481, 750	65, 000 80, 000	3, 383, 500 11, 303, 810 3, 122, 000 2, 192, 000
6. Norfolk 7. Savannah 8. Mobile 9. New Orleans 10. Galveston	66 44	6, 809 26, 781 6, 573 6, 402 716	47 52 43 14 7	5, 057 8, 899 6, 393 2, 132 548	1	98 470	7 13 1 4 1	1, 656 17, 412 180 4, 270 168	485, 000 1, 805, 700 367, 400 817, 300 54, 500	348, 000 415, 200 355, 400 127, 300 39, 500	10, 000 15, 000	127, 000 1, 375, 500 12, 000 190, 000 15, 000

TOWING.

Total	1, 095	61, 359	986	52, 535	6	236	103	8, 588	10, 203, 890	8, 554, 730	21, 800	1, 626, 800
1. Portland 2. Boston 3. New York 4. Philadelphia 5. Baltimore 6. Norfolk 7. Savannah 8. Mobile	536 124 103 58 64 53	2, 782 4, 412 35, 122 5, 857 4, 038 2, 114 3, 332 2, 741	49 77 511 95 89 49 50 42	2, 782 3, 403 32, 225 4, 296 3, 175 1, 495 2, 371 1, 838	2 2 2	67 84 85	6 23 29 12 7 14 11	1, 009 2, 830 1, 561 779 534 961 903	395, 900 702, 580 5, 886, 500 1, 123, 000 698, 900 317, 600 526, 350 415, 000	5, 347, 200 799, 900 507, 800 219, 400 363, 350 231, 500	5, 300 7, 500 9, 000	149, 400 534, 000 323, 100 183, 600 89, 200 163, 000 183, 500
9. New Orleans	14 11	500 461	13 11	489 461			1	11	61, 500 76, 000	60, 500 76, 000		1,000

FERRY.

Total	214	98, 174	155	57, 664	 	59	40, 510	7, 907, 700	3, 971, 200	3, 936	3, 500
1. Portland		735 5, 367 78, 407 9, 491	9 14 102 10	4, 863 45, 857		1 40 16	504 32, 550 6, 560	102, 500 865, 280 6, 363, 420 828, 500	315, 280 3, 223, 420	3, 140	0,000
5. Baltimore	9 3 9 1	1, 791 1, 268 1, 037 78	8 2 9 1	810 1,037				86, 500 88, 000 61, 500 12, 000	33,000 61,500		

YACHTS.

Total	170	11, 328	142	6, 111	3	353	25	4, 864	3, 520, 610	1, 735, 890	135, 000	1, 649, 720
1. Portland 2. Roston 3. New York 4. Philadelphia 5. Baltimore	36 100	43 1, 856 8, 215 529 331	33 80 11 2	3, 580 506	3	353	3 17 2	288 4, 282 23 232	11, 500 469, 300 2, 723, 610 165, 700 87, 000	375, 300 1, 102, 890 158, 700	135, 000	94, 000 1, 485, 720 7, 000
6. Norfolk	7	42 154 83 75	1 7 3 3	154			1	39	5, 000 41, 500 8, 800 8, 200	41,500 5,800		3,000

EQUIPMENT, OCCUPATION, AND CONSTRUCTION—Continued.

TABLE 6.—CONSTRUCTION BY CLASSES—Continued.

STEAMERS—Continued.

HARBOR.

	то	TAL.	MUM	BER AND TO	NAGE BY	NATERIALS (OF CONSTI	RUCTION.	VALUATIO	N BY MATERI.	ALS OF CONST	RUCTION.
DISTRICTS			, v	Vood.	Cor	nposite.	Iron	and steel.			:	
	Num- ber.	Tonnage.	Num- ber.	Tonnage.	Num- ber.	Tonnage.	Num- ber.	Топпаде.	Total valuation.	Wood.	Composite.	Iron and steel.
Total	94	13, 843	86	11, 302	i		8	2,541	\$1, 446, 150	\$1, 146, 150	·	\$300,00
1. Portland	2 11 61 2	324 951 8, 844 470	2 11 59 1	324 951 8, 571 179			2	273 291	75, 000 102, 250 860, 900 53, 500	822, 900 18, 500		38, 00 35, 00
5. Baltimore	3 4 4	1,728 169 171	4	169 171					187, 000 17, 500 30, 000	17, 500 30, 000	·	
9. New Orleans 0. Galveston	2 5	249 937	5	937				249	40, 000 80. 000	80, 000		
					MISCEI	LANEOUS	•					
Total	153	69, 127	110	24, 563	5	459	38	44, 105	5, 45 1, 570	1, 677, 170	\$111,000	3, 663, 4
l. Portland	1 4 98 16	408 1, 334 40, 740 2, 872	1 4 79 8	408 1, 334 19, 490 1, 466	4	400	15 8	20, 850 1, 406	15, 000 124, 000 3, 603, 170 366, 800	1, 300, 770	103, 000	2, 199, 4 227, 5
5. Baltimore 6. Norfolk 7. Savanuah	5 10 4	1, 713 1, 389 104	.9 4	369 1,330 104	1	59	1	1, 344	156, 500 68, 000 18, 600	16, 500 60, 000 18, 600	8, 000	140,0
9. New Orleans	14	20, 519 48	1	62			13	20, 457 48	1, 082, 000 17, 500	3,000		1, 079, 00 17, 50
				N	O TRAF	FIC REPOI	RT.					
Total	397	95, 392	357	46, 220			40	49, 172	8, 035, 900	3, 917, 900		4, 118, 0
I. Portland 2. Boston 3. New York 4. Philadelphia 5. Baltimore	16 44 154 62 21	2, 148 7, 941 56, 453 10, 747 4, 593	15 42 130 55 18	1, 638 3, 291 20, 778 5, 994 3, 663			1 2 24 7 3	510 4,650 35,675 4,753 930	236, 900 767, 100 4, 439, 000 1, 152, 550 355, 400	348, 800 1, 552, 500 668, 550		484, 0
6. Norfolk	23 35 25 7	1, 759 5, 542 2, 016 3, 659 534	22 35 25 5	1, 265 5, 542 2, 016 1, 499 534			2	494 2, 160	188, 500 475, 200 176, 550 199, 900 44, 800	150, 700 475, 200 176, 550 92, 100		37, 8 107, 8
				8.		F VESSEL EIGHT.	.8					-
Total	5, 229	1, 260, 362	5, 163	1, 232, 597	59	19, 028	7	8, 737	38, 777, 627	37, 658, 057	605, 070	514, 5
1. Portland	1, 523 655 1, 213 563 456	430, 981 285, 700 343, 868 138, 404 37, 361	1, 485 647 1, 206 553 455	418, 096 282, 082 337, 899 133, 223 37, 290		11, 437 3, 618 1, 091 2, 770	1 3 3	1, 448 4, 878 2, 411	12, 919, 607 8, 273, 500 10, 672, 110 4, 576, 940 1, 317, 620	12, 560, 937 8, 141, 100 10, 310, 810 4, 316, 240 1, 313, 620	303, 670 132, 400 41, 300 121, 200 4, 000	55, 0 320, 0 139, 5
3. Norfolk	187 185 156 166	6, 802 6, 164 5, 674 3, 557	185 185 156 168	6, 761 6, 164 5, 674 3, 557	i:	41			253, 980 244, 180 245, 160 159, 420	251, 480 244, 180 245, 160	2, 500	· · · · · · · · · · · · · · · · · · ·
0. Galveston	123	1, 851	123	1, 851					115, 110	115, 110		
					HA	RBOR.		•				
Total	368	15, 849	365		<u> </u>	96			1, 151, 540	1, 145, 790	5, 750	
. Portland	11 32 226 8 4	214 1, 474 11, 038 466 218	11 32 224 8 4	214 1, 474 10, 964 466 218	2	74			5, 410 153, 150 672, 850 84, 000 11, 700	5, 410 153, 150 670, 600 84, 000 11, 700	2, 250	
5. Norfolk	9 42 25 5	451 1, 238 559 54	9 42 24 5	451 1, 238 537 54	1				47, 700 124, 720 39, 250 2, 860	47, 700 124, 720 35, 750 2, 860	3, 500	

TABLE 6.—CONSTRUCTION BY CLASSES—Continued.

SAILING VESSELS—Continued.

YACHTS.

,	TO	TAL.	NUMI	SER AND TON	NAGE BY	MATERIALS	OF CONS	TRUCTION.	VALUATION	N BY MATERI	ALS OF CONS	TRUCTION.
DISTRICTS.	Num-		,	Vood.	Cor	nposite.	Iron	and steel.	Total	 		Iron and
	ber.	Tonnage.	Num- ber.	Tonnage.	Num- ber.	Tonnage.	Num- ber.	Tonnage.	valuation.	Wood.	Composite.	steel.
Total	628	14, 428	619	13, 875	3	72	6	481	\$2,681,455	\$2, 450, 655	\$20,500	\$210, 30
1. Portland	31 175 319 56	418 4, 122 8, 357 926 124	31 175 310 56 9	418 4, 122 7, 804 926 124	3	72	6	481	35, 690 740, 405 1, 764, 085 102, 040 9, 820	35, 690 740, 405 1, 533, 285 102, 040 9, 820	20. 500	
6. Norfolk	2 9 10 3 14	25 118 94 39 205	2 9 10 3 14	25 118 94 39 205					1, 250 6, 500 8, 350 2, 250 11, 065	6, 500 8, 350 2, 250		
					MISCE	LLANEOUS		•				
Total	52	2, 553	51	2, 510	1	43			75, 360	71, 360	4,000	
1. Portland	3 1 28 10	47 46 1, 186 1, 135	3 1 28 0 1	47 46 1, 186 1, 092 10	1	43			850 1,500 45,480 20,800 1,500	850 1, 500 45, 480 16, 800 1, 500	4,000	
6. Norfolk 7. Savannah 9. New Orleans 10. Galveston	1 5 2 1	8 59 15 38	1 5 2 1	8 59 15 38					130 2,500 1,100 1,500	130 2, 500 1, 100 1, 500		
		•	·	N	O TRAF	FIC REPOR	RT.			·		
Total	831	108, 793	831	108, 793	<u> </u>			1	3, 598, 525	3, 598, 525		
1. Portland	110 114 231 68 63	28. 929 23, 478 38, 255 6, 718 2, 813	110 114 231 68 63	28, 929 23, 478 38, 255 6, 718 2, 813			••••		916, 865 778, 670 1, 177, 280 254, 420 125, 420	916, 865 778, 670 1, 177, 280 254, 420 125, 420		
6. Norfolk	87 58 52 36 12	2. 721 853 3, 344 582 1, 100	87 58 52 36 12	2, 721 853 8, 344 582 1, 100					110,700 43,025 136,400 28,730 27,015	110, 700 43, 025 136, 40) 28, 730 27, 015		

TABLE 7.—CONSTRUCTION BY LOCALITIES—NUMBER, TONNAGE, AND VALUATION OF ALL STEAMERS AND SAILING VESSELS ALLOTTED RESPECTIVELY TO THEIR MATERIALS OF CONSTRUCTION.

ALL STEAMERS AND SAILING VESSELS.

	то	TAL.	NUME	AND TON	NAGE BY	MATERIALS	of cons	TRUCTION.	VALUATIO	N BY MATERI	ALS OF CONS	TRUCTION.
DISTRICTS AND CLASSES.	Number.	Tonnage.	V	Vood.	Con	mposite.	Iron	and steel.	Total	Wood.	Composite.	Iron and
	1.4	2011112	Num- ber.	Tonnage.	Num- ber.	Tonnage.	Num- ber.	Tonnage.	valuation.		00 22 p000101	steel.
Total	10,041	2, 239, 147	9, 477	1, 801, 088	90	24, 604	474	418, 455	\$119, 839, 047	\$ 80, 915, 8 97	\$1, 183, 120	\$37,740,030
SteamSail	2, 933 7, 108	837, 162 1, 401, 985	2, 448 7, 029	427, 560 1, 373, 528	24 66	5, 365 19, 239	461 13	404, 237 9, 218	73, 554, 540 46, 284, 507	35, 991, 510 44, 924, 387	547, 800 635, 320	37, 015, 230 724, 800
					STI	EAMERS.						
District 1—Portland	135	26, 918	134	26, 408			1	510	2, 511, 150	2, 461, 150		50, 000
Passenger and freight Towing	. 49	20, 478 2, 782	56 49	20, 478 2, 782					1, 674, 350 395, 900	1, 674, 350 395, 900		
Ferry Yachts	9 2	735 43	9 2	735 43	l				102, 500 11, 500	11, 500	i	<i></i>
Harbor	. 1	324 408	1	324 408	ľ		[·····		75, 000 15, 000	75, 000 15, 000	¦	
No traffic report	. 16	2, 148	15	1,638			1	510	236, 900	186, 900		50, 000
District 2—Boston	. 275	108, 290	248	68, 510	! !		27	39, 780	9, 033, 130	4, 937, 930		4, 095, 200
Passenger and freight Towing		86, 429 4, 412	67	53, 100 3, 403	!! ;		15 6	33, 329 1, 009	6, 502, 620 702, 580	3, 119, 120 553, 180		3, 383, 500 149, 400
Ferry Yachts	. 15	5, 367 1, 856	14 33	4, 863 1, 568	ľ		1 3	504 288	365, 280 469, 300	315, 280		50,000
Harbor	. 11	951 1, 334	11	951 1, 334			 		102, 250 124, 000	102, 250 124, 000		-
No traffic report	. 44	7, 941	42	3, 291	'	l İ	2	4, 650	767, 100	348, 800		418, 300
District 3-New York	1, 376	442, 871	1, 166	213, 279	12	2, 356	198	227, 236	40, 973, 060	19, 077, 330	308, 300	21, 587, 430
Passenger and freight. Towing	. 285 536	215, 090 35, 122	205 511	82, 778 82, 225	3 2	1, 536 67	77 23	130, 776 2, 830	17, 096, 460 5, 886, 500	5, 727, 650 5, 347, 200	65, 000 5, 300	11, 303, 810 534, 000
FerryYachta	. 142	78, 407 8, 215	102 80	45, 857 3, 580	3	353	40 17	82, 550 4, 282	6, 363, 420 2, 723, 610	3, 223, 420 1, 102, 890	135, 000	3, 140, 000 1, 485, 720
Harbor Miscellaneous	. 61	8, 844 40, 740	59 79	8, 571 19, 490	4	400	15	273 20, 850	860, 900 3, 603, 170	822, 900 1, 300, 770	103,000	38, 000 2, 199, 400
No traffic report	154	56, 453	130	20, 778			24	35, 675	4, 439, 000	1, 552, 500		2, 886, 500
District 4—Philadelphia	. 355	91, 065	250	40, 622	3	988	102	49, 455	8, 592, 250	3, 640, 150	80,000	4, 872, 100
Passenger and freight.	. 112 124	61, 099 5, 857	70 95	25, 250 4, 296	3		39 29	34, 861 1, 561	4, 902, 200 1, 123, 000	1, 700, 200 799, 900	80, 000	8, 122, 000 823, 100
Towing Ferry Yachts	. 26 13	9, 491 529	10 11	2, 931 506			16 2	6, 560 23	828, 500 165, 700	155, 000		673, 500 7, 000
Harbor Miscellaneous	. 2	470 2, 872	1 8	179 1, 466			1 8	291 1,406	53, 500 366, 800	18, 500 139, 300		35, 000 227, 500
No traffic report		10, 747	55	5, 994			ž	4,753	1, 152, 550	668, 550		484,000
District 5—Baltimore	229	71, 756	172	33, 189	4	1,311	53	37, 256	5, 355, 050	2, 323, 350	117, 500	2, 914, 200
Passenger and freight. Towing	. 84 103	57, 562 4, 038	51 89	24, 530 3, 175	2 2	1, 227 84	31 12	. 31, 805 779	3, 783, 750 698, 900	1, 481, 750 507, 800	110, 000 7, 500	2, 192, 000 183, 600
Ferry	. 9	1, 791 331	8	1, 353 99			1	438 232	86, 500 87, 000	68, 500 27, 000		18,000 60,000
Harbor	. 3	1, 728 1, 713		369			3	1, 728 1, 344	187, 000 156, 500	16, 500		187, 000 140, 000
No traffic report		4, 593	18	8, 663			3	930	355, 400	221, 800		133, 600
District 6-Norfolk	. 154	13, 550	134	10, 168	4	240	16	3, 142	1, 169, 600	833, 600	27,000	309, 000
Passenger and freight. Towing	. 53 . 58	6, 809 2, 114	47 49	5, 057 1, 495	1 2	96 85	7 7	1, 656 534	485, 000 317, 600	348, 000 219, 400	10, 000 9, 000	127, 000 89, 200
Ferry	.] 3	1, 268 42	2	810	ļ .		i	458	88, 000 5, 000	33,000		55,000
Harbor Miscellaneous	. 4	169 1,389		169 1, 330	i 1	59	,	 	17, 500 68, 000	17, 500		
No traffic report		1,759	22 	1, 265			1	494	188. 500	150, 700	j	37, 800
District 7—Savannah	189	37, f 21		18, 278	l1	470	27	18, 373	2, 958, 850	1, 405, 350	15, 000	1, 538, 500
Passenger and freight. Towing	64	26, 781 3, 332		8, 899 2, 371			13 14	17, 412 961	1, 805, 700 526, 350		15,000	163, 000
Ferry Yachts	9 7	1,037 154	9 7	1, 037 154			¶		61,500	61, 500 41, 500	· · · · · · · · · · · · · · · · · · ·	
Harbor	. 4		4	171 104			i . .		30,000 1 18,600	30,000		
No traffic report		5, 542					,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,	l	475, 200	475, 200	1	

TABLE 7.—CONSTRUCTION BY LOCALITIES—Continued.

STEAMERS-Continued.

	TO	TAL.	NUME	ER AND TOU	MACH IT	MATERIALS	OF CONS	PRUCTION.	VALUATION	BY MATERI	ALS OF CONS	reuction.
DISTRICTS AND CLASSES.		·	,	Wood.	Con	aposite.	Iron	and steel.	(Frank)			
	Number.	Tonnage.	Num- ber.	Tonnage.	Num- ber.	Tonnage.	Num- ber.	Tonnage.	Total valuation.	Wood.	Composite.	Iron and steel.
District 8—Mobile	126	11,413	113	10, 291			13	1, 122	\$967 , 750	\$769, 250	1	\$198, 50
Passenger and freight. Towing Yachts	44 53 4	6, 573 2, 741 83	43 42 3	6, 393 1, 838 44	·'		1 11 1	180 903 39	367, 400 415, 000 8, 800	231, 500		12, 000 183, 500 3, 000
No traffic report	25	2, 016	25.	2, 016			:		176. 550	176, 550	1	
District 9—New Orleans	56	31, 407	34	4, 260			22	27, 147	1, 712, 700	294, 900		1, 417, 80
Passenger and freight. Towing Ferry	18 14 1	6, 402 500 78	14 13 1	2, 132 489 78			1		317, 300 61, 500 12, 000	127, 300 60, 500 12, 000		
Harbor	2 14 7	249 20, 519 3, 659	1 5	62 1, 499	1		13 2	249 20, 457 2, 160	40, 000 1, 082, 000 199, 900	3, 000 92, 100		40, 000 1, 079, 000 107, 800
District 10—Galveston	38	2, 771	36	2, 555			2	216	281, 000	248, 500		32, 500
Passenger and freight . Towing Yachts	8 11 3	716 461	7 11	548 461 75					54, 500 76, 000	76,000		
Harbor	5 1 10	75 937 48 534	3 5 10	937 534	!		i	48	8, 200 80, 000 17, 500 44, 800	80,000		17, 50
No statue topoto			10						44,000	41,000	i	
				!	1	G VESSELS	·	<u> </u>				
District 1—Portland Freight	1, 678	430, 981	1, 640	418, 096	37	11, 437	1	1,448	13, 878, 422	13, 519, 752	\$303, 67 0	55, 00
Harbor	11	214 418	11 31	214 418					5, 410 35, 690	5, 410 35, 690	1	
Miscellaneous No traffic report	3 110	28, 929	110	28, 929	i				850 916, 865	850		
District 2—Boston	977	314, 820	969	811, 202	8	3, 618			9, 947, 223	. 9, 814, 825	132, 400	
Freight	655 32	285, 700 1, 474	647 32	282, 082 1, 474	8	3, 618			8, 273, 500 153, 150	8, 141, 100 153, 150	ļ	
Yachts	175 1 114	4, 122 46 23, 478	175 1 114	4. 122 46 23, 478					740, 405 1, 500 778, 670	1,500		
District 3—New York	2, 017	402, 704	1, 999	396, 108	9	1, 237	9	5, 359	14, 331, 805	18, 737, 455	64, 050	530, 30
Freight	1, 213	343, 868	1, 206	337, 899	4	1,091	3	4,878	10, 672, 110	10, 310, 810	41, 300	320,000
Yachts	226 319 28	11, 038 8, 357 1, 186	224 310 28	10, 964 7, 804 1, 186	3	74 72	6	481	672, 850 1, 764, 085 45, 480	670, 630 1, 533, 285 45, 480	2, 250 20, 500	210, 30
No traffic report	231	38, 255	231	38, 255					1, 177, 280			
District 4—Philadelphia	705	147, 649	694	142, 425	8	2, 813	3	2, 411	5, 038, 200	4, 773, 500	125, 200	139, 500
Freight	563 8	138, 404 466	553 8	133, 223 466	7	2, 770	3	2, 411	4, 576, 940 84, 000	4, 316, 240 84, 000	121, 200	139, 50
Yachta	56 10 68	926 1, 135 6, 718	56 9 68	926 1,092 6,718	1	43			102, 040 20, 800 254, 420	102, 040 16, 800 254, 420	4,000	
District 5—Baltimore	533	40, 535	532	40, 464	1	71			1, 466, 060	1, 462, 060	4,000	
Freight	456	37, 361 218	455	37, 290 218	1	71			1, 317, 620 11, 700	1, 313, 620 11, 700	4,000	
Yachts Miscellaneous No traffic report	9	124 19 2,813	9 1 63	124 19 2, 813					9, 820 1, 500 125, 420	9, 820 1, 500		
District 6-Norfolk		10,007	284	9, 966	i	41			413, 760	411, 260		
Freight	187	6, 802	185	6, 761	2	41			253, 980	251, 480	2, 500	
HarborYachts	2	451 25	9 2	451 25	·				17, 700 1, 250			
Miscellaneous No traffic report	87	2,721	87	2, 721					110,700		' '	
District 7—Savannah	<u>-</u>	8, 432	299	. 8,432	:	·						
Freight	42	1, 238	185 42	6, 164 1, 238]	· ••••••	244, 180 124, 720	124, 720		
Yachts		118 59	. 5	118 59					6, 500 2, 500	2, 500		

EQUIPMENT, OCCUPATION, AND CONSTRUCTION—Continued.

TABLE 7.—CONSTRUCTION BY LOCALITIES—Continued.

SAILING VESSELS-Continued.

	TO	TAL	NUMB	ER AND TON	NAGE BY	MATERIALS	OF CONST	RUCTION.	VALUATION	BY MATERI	ALS OF CONS	TRUCTION
DISTRICTS AND CLASSES.			v	Vood.	Cor	nposite.	Iron	and steel.				
	Number.	Tonnage.	Num- ber.	Tonnage.	Num- ber.	Tonnage.	Num- ber.	Tounage.	Total valuation.	Wood.	Composite.	Iron and steel
District 8—Mobile	243	0, 671	242	9, 649	1	22	`		\$429, 160	\$425, 660	\$3,500	;
Freight Harbor Yachts No traffic report	. 10	5, 674 559 94 3, 344	156 24 10 52	5, 674 537 94 3, 344	1	22			245, 160 39, 250 8, 350 136, 400	245, 160 35, 750 8, 350 136, 400		
District 9-New Orleans	214	4, 247	214	4, 247					194, 360	194, 360		•••••
Freight Harbor Yachts Miscellaneous No traffic report	168 5 3 2 36	3, 557 54 39 15 582	168 5 3 2 36	3, 557 54 39 15 582					159, 420 2, 860 2, 250 1, 100 28, 730	2, 869		
District 10—Galveston	156	3, 331	156	3, 331	1	: 	İ	!	164, 590	164, 590		
Freight	123 6 14 1 1	1, 851 137 205 38 1, 100	123 6 14 1 12	1, 851 137 205 38 1, 100		·			115, 110 9, 900 11, 065 1, 500 27, 015	9, 900 11, 065 1, 500		

· TRAFFIC OPERATIONS.

TABLE 8.—TRAFFIC IN GENERAL—TRIPS, MILES COVERED, PASSENGERS CARRIED, AND TONS OF FREIGHT MOVED BY THE PASSENGER AND FREIGHT CARRYING VESSELS, EXCLUSIVE OF FERRYBOATS, OF THE ATLANTIC COAST AND GULF OF MEXICO.

Districts.		ALL	CRAPT.			STRA	MERS.	1	8	AILING VESSI	ELS.	UNRIGGED CRAFT.
	Trips.	Milon.	Freight. (Tons.)	Passengers.	Trips.	Miles.	Freight. (Tons.)	Passengers.	Trips.	Miles.	Freight. (Tons.)	Freight. (Tons.)
Total	384, 888	73, 126, 338	80, 695, 665	11, 581, 446	157, 189	22, 897, 838	28, 791, 438	11, 581, 446	227, 699	50, 228, 500	39, 801, 533	12, 102, 694
Portland	46, 738 46, 175 96, 638 20, 134 50, 206	7. 571, 223 10, 949, 160 25, 342, 874 6, 019, 554 6, 241, 668	6, 125, 437 12, 353, 533 35, 543, 632 6, 894, 909 5, 823, 741	968, 604 2, 119, 296 5, 832, 914 1, 448, 986 854, 464	16, 896 20, 561 25, 652 4, 648 28, 170	1, 101, 263 3, 419, 580 7, 774, 204 1, 624, 064 2, 255, 198	1, 177, 599 3, 885, 454 13, 301, 662 1, 729, 539 2, 292, 355	968, 604 2, 119, 296 5, 832, 914 1, 448, 986 854, 464	29, 842 25, 614 70, 986 15, 486 22, 036	6, 469, 960 7, 529, 580 17, 568, 670 4, 395, 490 3, 980, 470	4, 731, 379 7, 260, 053 12, 833, 857 4, 927, 123 3, 450, 372	216, 459 1, 208, 026 9, 408, 113 238, 247 81, 014
6. Norfolk	27, 900 49, 169 22, 592 14, 302 11, 034	4, 412, 405 7, 371, 090 2, 238, 830 1, 333, 434 1, 646, 100	5, 129, 690 5, 841, 148 1, 076, 945 1, 184, 206 722, 424	89, 066 152, 228 90, 956 18, 944 5, 988	16, 980 25, 533 12, 166 3, 438 3, 145	1, 865, 205 2, 991, 370 737, 860 324, 204 804, 890	2, 290, 751 2, 681, 398 375, 789 568, 259 488, 632	89, 066 152, 228 90, 956 18, 944 5, 988	10, 920 23, 636 10, 426 10, 864 7, 889	2, 547, 200 4, 379, 720 1, 500, 970 1, 009, 230 841, 210	2, 704, 717 2, 433, 097 651, 176 595, 967 213, 792	134, 222 726, 653 49, 980 19, 980 20, 000

TABLE 9.—FREIGHT TRAFFIC BY COMMODITIES—AMOUNT OF EACH SELECTED COMMODITY OF THE TOTAL FREIGHT MOVED BY THE PASSENGER AND FREIGHT CARRYING VESSELS, EXCLUSIVE OF FERRYBOATS.

ALL CRAFT.

		ALL CR	AFT.			=.	
			cor	MODITIES. (TON	s.)		•
DISTRICTS.	Total.	Coal.	Lumber.	Stone.	Ice.	Cement, brick, and lime.	All other commodities.
All districts	80, 695, 665	23, 775, 938	10, 887, 627	1, 991, 848	4, 026, 499	4, 149, 359	35, 864, 394
		STEAM	ERS.				
Total	28, 791, 438	5, 508, 722	1, 712, 432	190, 825	446, 507	516, 271	20, 386, 681
1. Portland	1, 177, 599 3, 885, 454 13, 301, 662 1, 729, 539	518, 763 1, 333, 572 3, 083, 246 263, 374	124, 847 42, 921 275, 185 21, 606	44, 916 11, 365 106, 827 7, 043	46, 209 4, 966 343, 994 5, 693	31, 142 33, 706 451, 129 2, 615	411, 722 2, 458, 924 9, 041, 281 1, 429, 208
5. Baltimore	2, 292, 355	238, 498	56, 050	14, 957	2, 874	6, 412	1, 973, 564
6. Norfolk	2, 290, 751 2, 681, 398 375, 789 568, 259 488, 632	58, 003 7, 098 724	341, 980 367, 266 110, 549 369, 141 2, 887	5, 168 266 283	9, 912 31, 970 881	12, 838 4, 042 2, 514 1, 725 148	1, 862, 850 2, 270, 756 260, 838 197, 393 480, 145
		5, 444				-	
		SAILING V	ESSELS.				
Total	39, 801, 533	12, 980, 044	8, 883, 253	1,549,337	2, 528, 490	2, 413, 533	11, 446, 976
1. Portland	4, 731, 379 7, 260, 053 12, 833, 857 4, 927, 123 3, 450, 372	1, 215, 747 3, 351, 824 3, 547, 746 1, 183, 258 1, 760, 524	1, 134, 628 1, 786, 467 1, 711, 369 1, 578, 711 405, 951	401, 431 396, 442 558, 843 106, 672 29, 679	1, 122, 399 133, 580 205, 915 567, 955 353, 850	354, 894 206, 959 1, 692, 522 55, 349 29, 109	502, 280 1, 384, 781 5, 117, 462 1, 433, 178 871, 259
6. Norfolk 7. Savannah 8. Mobile 9. New Orleans 0. Galveston	2, 704, 717 2, 433, 097 651, 176 595, 967 213, 792	1, 460, 640 376, 243 53, 724 12, 523 17, 715	432, 221 1, 135, 267 426, 350 201, 400 70, 889	12, 542 20, 819 9, 668 7, 121 4, 020	77, 805 51, 782 14, 905 299	19, 846 14, 489 3, 606 15, 033 21, 726	701, 663 834, 397 142, 923 359, 591 99, 442
		UNRIGGED	CRAFT.	<u> </u>			
Total	12, 102, 694	5, 287, 172	291, 942	251, 786	1, 051, 502	1, 189, 555	4, 030, 737
1. Portland	216, 459 1, 208, 026 9, 408, 113	167, 888 1, 150, 213 3, 754, 339	14, 700 142, 505	10, 780 8, 925 175, 175	37, 791 2, 400 998, 815	14, 455 1, 174, 973	17, 333 3, 162, 306
4. Philadelphia	238, 247 81, 014	105, 114 11, 135	10, 300 21, 773	36, 906		57	122, 776 11, 200
6. Norfolk	134, 222 726, 653 49, 980	98, 483	3, 500 29, 204 49, 980		12, 496	70	19, 743 697, 379
9. New Orleans	19, 980 20, 000		19, 980	20, 000			••••••

TRAFFIC OPERATIONS—Continued.

TABLE 10.—INTERDISTRICT MOVEMENT, FREIGHT AND MILEAGE—AMOUNT OF EACH SELECTED COMMODITY MOVED WITHIN OR BETWEEN TRAFFIC DISTRICTS BY THE PASSENGER AND FREIGHT CARRYING VESSELS, EXCLUSIVE OF FERRYBOATS, AND THE NUMBER OF MILES COVERED IN THE TRANSPORTATION OF SUCH FREIGHT.

•		St	JMMARY.						
INTERDIST	RICT MOVEMENT.			соимс	ODITIES. (TO	ons.)			
From-	То	Total.	Coal.	Lumber.	Stone.	Ice.	Cement, brick, and lime.	All other com- modities.	Miles covered.
All districts		80, 695, 665	23, 775, 938	10, 887, 627	1, 991, 848	4, 026, 499	4, 149, 359	35, 864, 394	73, 126, 23
		DISTRIC	T 1—PORT	LAND.			·	·	•
Total		5, 968, 284	1, 902, 398	1, 180, 856	454, 460	1, 194, 122	385, 817	870, 631	7, 256, 500
Portland	1. Portland	483, 689	10, 932	67, 945	115, 771	17, 089	35, 883	236, 069	1, 085, 833
Do	2. Boston	649, 008 1, 164, 268	34	292, 192 565, 103	70, 158 1 62, 588	8, 801 177, 384	128, 683 165, 800	149, 140 93, 393	1, 407, 330 1, 405, 980
Do Do	4. Philadelphia	605, 836 360, 788		42, 756	60, 228 15, 293	497, 177	768 928	4,907	457, 564
		i ' i	il .	17,840		324, 708		2, 019	246, 66
Do	6. Norfolk	112, 793 78, 434		6, 580 1, 670	5, 105 8, 210	87, 549 64, 530	10, 889 1, 040	2, 670 2, 984	76, 135 108, 260
Do	8. Mobile	5, 860		78, 619	2, 667	4, 607 12, 277	219	1, 253 20, 267	41, 37
all districts	1. Portland	2, 413, 559	1, 891, 432	108, 151	14, 440	12, 211	41,607	357, 929	263, 115 2, 164, 25
		DISTRI	ICT 2-BOS	TON.					
Total		11; 990, 935	5, 835, 361	1, 786, 264	415, 484	124, 790	255, 120	3, 573, 916	9, 995, 79
Soston	2. Boeton	465, 815	5, 465	5, 563	202, 636	500	5, 417	246, 234	643, 67
Do	1. Portland	218, 069 920, 291	12, 184	187 17, 188	2, 083 92, 112	3, 453	8, 841 3, 320	194, 774 804, 218	440, 33 429, 76
Do	4. Philadelphia	254, 411		4, 943	28, 043	57, 611	360	163, 454	168, 33
Do	5. Baltimore	215, 289			3, 05 5	27, 436	 	184, 798	194, 75
Do	6. Norfolk	10, 278 78, 595			517 612	4, 101 4, 565	3, 739 213	1, 921 73, 205	12, 91
Do	8. Mobile	4, 227				2, 167	210	2, 060	275, 81 10, 50
Do	9. New Orleans	2, 267						2, 267	3, 66
Do	10. Galveston	667			•••••			667	8, 92
Doll districts	12. Foreign	157, 819 9, 663, 207	5, 817, 712	38, 570 1, 719, 813	1, 248 85, 178	16, 156 8, 801	233, 230	101, 845 1, 798, 473	392, 86 7, 414, 26
		DISTRIC	T 3—NEW	YORK.	•			<u>'</u>	
Total		32, 713, 210	10, 147, 444	1, 870, 711	830, 649	1, 536, 210	3, 169, 669	15, 158, 527	19, 777, 15
iew York	3. New York	17, 817, 212	4, 439, 504	202, 925	503, 635	1, 336, 388	2, 672, 816	8, 661, 944	5, 571, 91
Do	1. Portland	1, 315, 246	1, 140, 674	2, 980	11, 960		32, 766	126, 866	1, 018, 39 2, 255, 82
Do	2. Boston	4, 410, 588 163, 005	3, 329, 862	23, 067 634	13, 553 8, 744	939	103, 107 18, 503	940, 999 134, 185	2, 255, 82 109, 48
Do	5. Baltimore	100, 583	3, 237		2, 500		5, 304	89, 542	72, 32
Do	6. Norfolk	422, 329	43, 099		2, 670	855	5, 853	369, 852	370, 97
Do	7. Savannah 8. Mobile	567, 141 17, 553	74, 125 3, 892	·······	8, 997 893	4, 677	9, 957 780	469, 385 11, 988	681, 980 38, 042
Do	9. New Orleans	12, 653	3, 058				48	5, 707	22, 654
Do	10. Galveston	186, 666	5, 301		1, 600	! 	1,779	177, 986	407, 163
Do	11. Pacific coast	171, 985 1, 107, 142	7, 627 170, 550	57, 737	2, 361	6, 587	510	164, 358 869, 397	308, 109 1, 679, 011
Il districts	12. Foreign. 3. New York.	6, 421, 107	926, 515	1, 583, 368	269, 896	186, 764	318, 246	3, 136, 318	7, 241, 302
		YOMDIAM A	h	· !					
· · · · · · · · · · · · · · · · · · ·		<u> </u>					I	1	
Total		6, 418, 448	1, 497, 874	1, 600, 231	115, 695	569, 988	56, 304	2, 578, 356	5, 415, 689
hiladelphia	4. Philadelphia	938, 024	88, 032	14, 793	13, 427	93	28, 879	792. 800	1,034, 63 238, 04 1,141, 44 283, 85 97, 1
Do	1. Portland	306, 740 2, 003, 406	88, 032 301, 278 649, 261	1, 167, 540	397		1, 440	5, 065 185, 165	238, O
Do	3. New York	380, 043	147, 165	3, 866			I 	228, 204	283.
Do	5. Baltimore	67, 878	11, 484	634	453	•••••	3, 800	51, 507	97, 1
Do	6. Norfolk	166, 932 293, 057	53, 958 176, 302		2, 787	5, 428	578	106, 973	146. 3
Do	8. Mobile	9,619	5, 410		2, 181	2, 146 2, 934		111, 822 1, 275	146. 3 302. 70 13. 10 8. 49
Do	9. New Orleans	5, 885	5, 885	·	•••••				8, 49
Do	10. Galveston	26, 670	3, 093	734			 	22, 843	80, 246 30, 746
Do	11. Pacific coast	15, 728 211, 420	53, 872	2, 090		2, 920		15, 728 152, 538	30, 746 273, 153
Il districts	4. Philadelphia	1, 993, 046	2, 134	410, 574	97, 823	553, 467	21,612	904, 436	1, 776, 780

TRAFFIC OPERATIONS—Continued.

TABLE 10.—INTERDISTRICT MOVEMENT, FREIGHT AND MILEAGE—Continued.

DISTRICT 10-GALVESTON.

INTERDIST	RICT MOVEMENT.			COM	ODITIES. (TO	NS.)			
From—	То—	Total.	Coal.	Lumber.	Stone.	Ice.	Coment, brick, and lime.	All other com- modities.	Mile« covered.
Total		717. 381	23, 159	70, 879	24, 020	8	21, 874	577, 441	1, 629, 89
Galveston	10. Galveston	252, 347 172, 753 6, 724	6, 044	5. 623	21, 220			194, 520 169, 740 1, 101	432, 56 363, 6 16, 2
Do Do Do	8. Mobile	786 13, 516 4, 244		12, 453 2, 897				786 1,063 1.347	5, 7 64, 8 11, 2
All districts	10. Galveston	267, 011	17, 115	36, 386	2, 800		1, 826	208, 884	735. 4
	5. Baltimore	3,600						2, 134 79, 089 2, 934 3, 600	17, 5 154, 0 15, 3 12, 0
LII districts	11. Pacific coast	219, 840	39, 754				<u></u>	180, 086	362. 9
		DISTRIC	T 12—FORE	IGN.					
Total		3, 957, 589	349, 028	518, 644	18, 598	46, 927	156, 206	2, 862, 186	7, 743, 7
Do	12. Foreign	233, 083 23, 104 202, 645	59, 710 248	23, 054 19, 254	634			149, 685 23, 104	1, 479, 4 51, 6
Do Do	3. New York	1, 239, 123		177, 557	7, 201	5, 927	148, 445	183, 148 899, 993	542,9 1,945,0
Do	4. Philadelphia 5. Baltimore 6. Norfolk 7. Savannah	93, 914			20 1,510 .	740		235, 606 74, 261 12, 611 12, 464	284, 191, 13, 33,
Do	8. Mobile 9. New Orloans	26, 238						5, 111 24, 931	12, 30.
Do	10. Galveston	799		000 000				799	2

EARNINGS AND EXPENSES.

Table 11.—Financial account in general—gross earnings, expenses, and net earnings of the passenger and freight carrying vessels, exclusive of ferryboats, of the atlantic coast and gulf of mexico.

		TOTAL.			STRAMERS.	<u>!</u> i	BA1	LING VESSEL	8.	UNI	RIGGED CRAI	řT.
DISTRICTS.	Gross earnings.	Expenses.	Net earnings.	Gross earnings.	Expenses.	Net earnings.	Gross earnings.	Expenses.	Net earnings.	Gross earnings.	Ехрепаев.	Net earnings.
Total	\$ 70, 843, 633	\$ 54, 080, 214	\$16, 763, 419	\$30, 112, 259	\$23, 075, 441	\$ 7. 036, 818	\$31, 700, 178	\$23, 420, 855	\$8, 279, 323	\$ 9, 031, 196	\$7 , 583, 918	\$1, 447, 278
1. Portland 2. Boston	11, 66 5, 006 13, 749, 837	8, 775, 234 10, 582, 826	2, 889, 772 3, 167, 011	1, 394, 214 6, 157, 986	1, 125, 757 4, 892, 136	268, 457 1, 265, 850	9, 846, 292 7, 023, 668	7, 29 7, 317 5, 230, 381	2, 548, 975 1, 793, 287	424, 500 568, 183	352, 160 460, 309	72, 340 107, 876
3. New York 4. Philadelphia 5. Baltimore	26, 997, 875 8, 051, 133 4, 379, 962	20, 936, 832 5, 704, 000 3, 279, 283	6, 061, 043 2, 347, 133 1, 100, 679	11, 638, 286 2, 979, 166 3, 239, 950	8, 731, 193 2, 109, 551 2, 436, 819	2, 907, 093 869, 615 803, 131	8, 479, 623 4, 359, 155 957, 379	6, 343, 796 3, 027, 063 708, 901	2, 135, 827 1, 332, 092 248, 478	6, 879, 966 712, 812 182, 633	5, 861, 843 567, 386 133, 563	1, 018, 123 145, 426 49, 070
6. Norfolk 7. Savannah	496, 634 2, 324, 335	371, 801 1, 997, 291	124, 833 327, 044	270, 550 2, 029, 111 647, 882	197, 801 1, 760, 323 542, 069	72, 749 268, 788	160, 184 192, 266	119, 436 154, 209	40, 748 38, 057	65, 900 102, 958	54, 564 82, 759	11, 336 20, 199
8. Mubile 9. New Orleans 10. Galveston	998, 713 1, 943, 309 236, 829	812, 355 1, 439, 731 180, 861	186, 358 503, 578 55, 968	1, 685, 854 69, 260	1, 231, 311 48, 481	105, 813 454, 543 20, 779	275, 387 254, 655 151, 569	213, 632 206, 420 119, 700	61, 755 48, 235 31, 869	75, 444 2, 800 16, 000	56, 654 2, 000 12, 680	18, 790 800 3, 320

TABLE 12.—RUNNING AND SHORE EXPENSES—ANALYSIS OF THE EXPENSES OF THE PASSENGER AND FREIGHT CARRYING VESSELS, EXCLUSIVE OF FERRYBOATS.

		ALL	CRAFT.		l	STI	AMERS.	
DISTRICTS.	Number of	1	Expenses.		Number		Expenses.	
	vessels.	Total.	Running.	Shore.	vessels.	Total.	Running.	Shore.
Total	9, 464	\$54, 080, 214	\$47, 046, 211	\$ 7, 034, 003	810	\$23, 075, 441	\$19, 448, 817	\$3, 626, 624
1. Portland	1, 734 951 3, 310 1, 171 700	8, 775, 234 10, 582, 826 20, 936, 832 5, 704, 000 3, 279, 283	7, 889, 782 9, 643, 349 17, 537, 122 5, 225, 726 2, 762, 733	885, 452 939, 477 3, 399, 710 478, 274 516, 550	56 82 285 112 84	1, 125, 757 4, 892, 136 8, 731, 193 2, 109, 551 2, 436, 819	1, 071, 927 4, 497, 778 7, 025, 708 1, 879, 888 1, 977, 213	53, 830 394, 358 1, 705, 485 229, 663 459, 606
6. Norfolk. 7. Savannah. 8. Mobile. 9. New Orleans.	363 543 311 199 182	371, 801 1, 997, 291 812, 355 1, 439, 731 180, 861	330, 117 1, 788, 036 757, 246 938, 156 173, 944	41, 684 209, 255 55, 109 501, 575 6, 917	55 66 44 18 8	197, 801 1, 760, 323 542, 069 1, 231, 311 48, 481	162, 907 1, 560, 607 495, 956 734, 026 42, 807	34, 894 199, 716 46, 113 497, 285 5, 674
		BAILIN	G VESSELS.			UNRIG	BED CRAFT.	
DISTRICTS.	Number		Expenses.		Number	1	Expenses.	
	of vessels.	Total.	Running.	Shore.	of ve sse ls.	Total.	Running.	Shore.
Total	5, 229	\$23, 420, 855	\$21, 120, 368	\$ 2, 300, 48 7	3, 425	\$7, 583, 918	\$6, 477, 026	\$1, 106, 892
1. Portland	1, 523 655 1, 213 563 456	7, 297, 317 5, 230, 381 6, 343, 796 3, 027, 063 708, 901	6, 537, 907 4, 731, 037 5, 606, 961 2, 792, 930 657, 281	759, 410 499, 344 736, 835 234, 133 51, 620	155 214 1, 812 496 160	352, 160 460, 309 5, 861, 843 567, 386 133, 563	279, 948 414, 534 4, 904, 453 552, 906 128, 239	72, 212 45, 775 957, 390 14, 478 5, 324
6. Norfolk	187 185 156 168	119, 436 154, 209 213, 632 206, 420	115, 690 149, 685 208, 290 202, 130	3, 746 4, 524 5, 342 4, 290	121 292 111 13	54, 564 82, 759 56, 654 2, 000	51, 520 77, 744 53, 000 2, 000	3, 044 5, 015 3, 6 54

EARNINGS AND EXPENSES—Continued.

TABLE 13.—EMPLOYÉS AND WAGES BY COAST TOTALS—TOTAL WAGES PAID DURING THE YEAR TO EMPLOYÉS MAKING ORDINARY CREWS ON THE PASSENGER AND FREIGHT CARRYING VESSELS, EXCLUSIVE OF FERRYBOATS.

<u> </u>	ALL	CRAFT.	STE	AMERS.	BAILING	VESSELS.	UNRIGG	ED CRAFT.
districts.	Number making ordinary crews.	Wages paid during year.	Number making ordinary crews.	Total wages paid during year.	Number making ordinary crews.	Total wages paid during year.	Number making ordinary crews.	Total wages paid during year,
Total	52, 659	\$16, 333, 338	15, 827	\$ 5. 868, 525	31, 957	\$8, 419. 657	4, 875	\$2,045,15 6
1. Portland	13, 574 7, 932 15, 944 5, 663 3, 819	2, 916, 063 2, 824, 930 6, 324, 363 1, 814, 655 944, 464	841 2, 672 5, 563 2, 142 1, 696	298, 720 1, 058, 953 2, 341, 329 758, 926 514, 868	12, 550 5, 025 6, 943 3, 108 1, 908	2, 567, 183 1, 698, 494 2, 375, 328 932, 157 351, 879	183 235 3, 438 413 215	50, 160 67, 483 1, 607, 706 123, 572 77, 717
6. Norfolk. 7. Navanuah. 8. Mobile. 9. New Orleans. 10. Galveston.	1, 171 1, 600 1, 517 1, 041 398	253, 955 466, 395 389, 605 303, 456 95, 452	488 900 945 500 80	131, 477 323, 249 240, 997 172, 796 27, 210	536 569 500 538 280	89, 240 97, 140 119, 456 129, 220 59, 560	147 131 72 3 38	33, 238 46, 006 29, 152 1, 440 8, 682

TABLE 14.—EMPLOYES AND WAGES IN DETAIL—MONTHLY WAGES PAID IN EACH DISTRICT TO ALL GRADES OF EMPLOYES ON THE PASSENGER AND FREIGHT CARRYING VESSELS, EXCLUSIVE OF FERRYBOATS.

SUMMARY.

		ALL CRAFT.		İ	STRAMERS.		8A	ILING VESSEI	.S.	UN	RIGGED CRA	FT.
EMPLOYÉS.	Number making ordinary crews.	Aggregate wages for 1 month.	Average monthly wages.	Number making ordinary crews.	Aggregate wages for 1 month.	Average monthly wages.	Number making ordinary crews.	Aggregate wages for 1 month.	Average monthly wages.	Number making ordinary crews.	Aggregate wages for 1 month.	Average monthly wages.
Total	52, 659	\$1,790,031	\$33.99	15, 827	\$6 08, 320	\$38.44	31,957	\$967 , 533	\$30. 28	4, 875	\$214, 178	\$43.90
Captains First mates Second mates, third mates, and boatswains.	8, 326 4, 738 1, 826	507, 108 179, 223 59, 740	60. 91 37. 83 32. 72	810 626 365	77, 824 33, 725 15, 255	96. 08 53. 87 41. 79	5, 229 3, 711 1, 461	312, 270 126, 095 44, 485	59. 72 33. 98 30. 45	2, 287 401	317, 014 19, 403	51. 10 48. 3
Clerks and pursers		31, 626 709	55, 48 64, 45	570 11	31, 626 709	55. 48 64. 45						
First engineers	965 621	72, 229 35, 827	74. 85 57. 69	810 6 21	59, 570 35, 827	73. 54 57. 69	 			155	12, 659	81.6
Firemen and coal passers Wheelmen and pilotsookouts	2, 258 709 228	74, 342 34, 307 6, 670	32. 92 48. 39 29. 25	2, 240 674 209	73, 594 32, 967 6, 239	32.85 48.91 29.85	35 19	1.340 431	38. 29 22. 68	18	748	41.5
Vatchmen	[16, 548 160, 625 16, 600	31. 11 29. 18	. 469 757 435	14, 380 26, 273 10, 837	30. 66 34. 71 24. 91	33 4, 348 302	1, 054 121, 510 5, 763	31. 94 27. 95 19. 08	30 400	1, 1 14 1 2 , 842	37. 1 32. 1
and butchers. eamen leck hands and porters	17, 418 4, 677	372, 396 132, 521	21.38 28.33	1, 019 3, 093	27, 489 82, 123	26, 98 26, 55	16, 399	344, 907	21.03	1, 584	50, 398	31.8
tilers and water tenderstewards and sforekeepers Vaiters	521 430 1, 614	20, 199 19, 651 31, 864	38. 77 45. 70 19. 74	521 339 1, 614	20, 199 16, 163 31, 864	38. 77 47. 68 19. 74	91	3, 488	38. 33			
oys	447 381	6, 067 6, 494	13.57 17.04	233 381	3, 699 6, 494	15. 88 17. 04	214	2, 368	11.07			
Carpenters	145	5, 285	36. 45	30	1, 463	48.77	. 115	3, 822	33. 23	 		

EARNINGS AND EXPENSES—Continued.

TABLE 14.—EMPLOYES AND WAGES IN DETAIL—Continued.

ALL CRAFT.

DISTRICTS.	Number	7	OTAL.	CA	PTAINS.	FIRS	T MATES.	THIRD	ND MATFS, MATES, AND ISWAINS.		RKS AND PRSERS.	sui	RGEONS.
DISTRICTS.	of vessels.	Num- ber.	Wages per month.	Num- ber.	Wages per mouth.	Num- ber.	Wages per month.	Num- ber.	Wages per month.	Num- ber.	Wages per month.	Num- ber.	Wages per month.
Total	9, 464	52, 659	\$1.790,031	8, 326	\$507, 108	4, 738	\$179, 223	1, 826	\$59,740	570	\$ 31, 62 6	11	\$70
SteamersSailing vesselsUnrigged craft	810 5, 229 3, 425	15, 827 31, 957 4, 875	608, 320 967, 533 214, 178	810 5, 229 2, 287	77, 824 312, 270 117, 014	626 3, 711 401	33, 725 126, 095 19, 403	365 1, 461	15, 255 44, 485	570	31,626	11	700
···-		··			STE	AMERS				'' · · · - -	<u> </u>		
Total	810	15, 827	608, 320	810	77, 824	626	33, 725	365	15, 255	570	31, 626	11	701
1. Portland	56 82 285 112 84	841 2, 672 5, 563 2, 142 1, 696	35, 185 105, 018 228, 409 75, 057 56, 289	56 82 285 112 84	4, 889 9, 676 31, 411 9, 028 6, 762	40 80 228 86 70	1, 869 4, 880 12, 862 4, 311 3, 641	15 62 101 74 48	645 2, 790 4, 478 2, 728 1, 992	30 80 240 45 49	1, 770 5, 268 12, 338 2, 344 2, 432	8 3	520 180
6. Norfolk	55 66 44 18 8	488 900 945 500 80	13, 461 33, 501 34, 784 23, 664 2, 952	55 66 44 18 8	2, 989 6, 018 3, 672 2, 735 644	36 36 29 17 4	1, 200 1, 780 1, 747 1, 290 145	6 32 11 16	210 1, 087 495 830	13 25 61 21 6	383 2, 035 3, 179 1, 612 265		
		-	a second or so so some		SAILING	VESSI	ELS.		·				
Total	5, 229	31, 957	967, 533	5, 229	312, 270	3, 711	128, 095	1, 461	44, 485			<u> </u>	
1. Portland 2. Boston 3. New York 4. Philadelphia 5. Baltinore	1,523 655 1,213 563 456	12, 550 5, 025 6, 943 3, 108 1, 908	373, 648 162, 004 228, 587 99, 995 42, 590	1, 523 655 1, 213 563 456	99, 421 49, 470 81, 878 35, 925 17, 173	1, 337 510 976 444 294	47, 280 19, 910 33, 079 15, 662 6, 507	690 293 335 98 31	21, 424 8, 969 10, 056 2, 805 873				
6. Norfolk 7. Sevannah 8. Mobile 9. New Orleans 10. Galveston	187 185 156 168 123	536 569 500 538 280	10. 853 13, 173 14, 036 14, 571 8, 076	187 185 136 168 123	5, 348 6, 222 6, 296 6, 169 4, 368	66 30 29 15 10	1, 333 825 804 450 245	2 5 3 4	70 110 78 100				i
			·	·	UNRIGG	ED CR.	AFT.		<u> </u>	•	-	<u> </u>	
Total	3, 425	4, 875	214, 178	• 2, 287	117. 014	401	19, 403	ļ	·-·	· · · · · · ·		ļ	
1. Portland 2. Boston 3. New York 4. Philadelphia 5. Baltimore	155 214 1,812 496 160	*183 235 3, 438 413 215	6. 140 7, 981 162, 709 15, 607 7, 975	69 97 1,699 117 97	2, 955 4, 808 90, 447 5, 859 4, 112	7 354 31 6	200 17, 718 1, 125 250						
6. Norfolk	121 292 111	147 131 72 3	4, 056 5, 142 2, 848	56 43 68	2, 235 2, 210 2, 668	3	110					·	·

EARNINGS AND EXPENSES—Continued.

TABLE 14.-EMPLOYES AND WAGES IN DETAIL-Continued.

ALL CRAFT-Continued.

districts.	FIRST E	ngineers.	AND TH	ENGINEERS IRD ENGI- ERS.		AND COAL SERS.		MEN AND LOTS.	1.00	KOUTS.	WAT	CHMEN.
	Number.	Wages per month.	Number.	Wages per month.	Number.	Wages per month.	Num- ber.	Wages per month.	Num- ber.	Wages per month.	Number.	Wages pe month.
Total	965	\$72, 229	621	\$35, 827	2, 258	\$74,342	709	\$34, 307	228	\$6, 670	532	\$16,5
eamers	810	59, 570	621	35, 827	2, 240	73, 594	674	32, 967	209	6, 239	469	14,3
niling vessels nrigged craft	155	12, 659	ļ		18	748	35	1, 340	19	431	33 30	1, 0 1, 1
	-			ST	EAMERS	-Continued.						
Total	810	59, 570	621	35, 827	2, 240	73, 594	674	32, 967	209	6, 239	469	14, 3
Portland	56 82 285 112	4, 480 6, 642 21, 586 7, 925	29 80 241 90	2, 030 4, 610 14, 724 4, 529	80 388 838 393	2, 800 14, 550 27, 654 11, 794	45 120 224 63	2, 250 6, 240 11, 832 3, 056	8 51 94 2	272 1, 676 2, 922 90	21 53 173 60	5,8
. Baltimore	84	6, 336	62	3, 663	274	8, 963	63 72	2, 080	33	731	65	1, 8 1. 3
Norfolk	55 66 44	2, 646 4, 381 3, 838	20 46 25	653 2, 410 1, 498	53 103 43	1, 168 3, 200 1, 224	23 50 47	553 1,710 3,578	4 5 6	83 80 195	5 30 38	1,1
. New Orleans	18	1, 720 516	25 3	1.570 110	67 1	2, 221 20	28 2	1,598 70	6	190	18 6	1
		:		SAILI	NG VESS	ELS—Contin	ued. — — 35	1, 340	19	431	33	1, 0
				_=						Ta :		
Portland							10	305	3 2	70 55	10 5	:
New York							14 4	315 210	6 1	135	9	
Norfolk	 						1 6	15 495	2	36	3	
. M obile				••••••					·······			
. New Orleans				• • • • • • • • • • • • • • • • • • • •		1			. 5	120	4	
	· ———	·	 -		·			·		i - -		
				UNRIG	GED CR	AFT—Contin	ned.				•	
Total	155	12, 659		UNRIG	GED CR.	AFT—Contin	ned. 			· · · · · · · · · · · · · · · · · · ·	30	1,
Portland	155		!	UNRIG	i:		ned.			 	30	1,
Portland	7	485		UNRIG	18	748	nued.	,				1,
Portland]	UNRIG	i:		nued.				30 25 2 2	1,
Portland	7 138 4	485 11, 449 245		UNRIG	18	748	nued.				25 2	1,

EARNINGS AND EXPENSES—Continued.

TABLE 14.—EMPLOYES AND WAGES IN DETAIL—Continued.

ALL CRAFT—Continued.

DISTRICTS.		OOKS BAKERS.	PANT	ASSISTANTS, TRYMEN, UTCHERS.	SEA	AMEN.		ANDS AND		RS AND TENDERS.
Districts.	Number.	Wages per month.	Number.	Wages per month.	Number.	Wages per month.	Number	Wages per month.	Number.	Wages per month
Total	5, 505	\$160,625	737	\$16,600	17, 418	\$372, 396	4, 677	\$132, 521	521	\$20, 19
iteamers	757 4, 348 400	26, 273 121, 510 12, 842	435 302	10, 837 5, 763	1,019 16,399	27, 489 344, 907	3, 093 1, 584	82, 123 50, 398	521	20, 1
		ST	EAMERS-	 Continued.		'	··			' -
Total	757	26, 273	435	10, 837	1, 019	27, 489	3, 093	82, 123	521	20, 1
1. Portland 2. Boston 3. New York 4. Philadelphis 5. Baltimore	50 102 268 100 66	2, 000 4, 590 10, 038 3, 016 1, 935	20 78 180 54 36	570 1, 882 5, 182 1, 328 673	30 193 452 155 93	780 5, 575 11, 603 3, 596 2, 297	130 543 869 456 334	4, 160 16, 833 24, 766 11, 838 6, 379	20 110 237 31 40	4, 4 9, 6 1, 1 1, 4
8. Norfolk 7. Savannah 8. Mobile 9. Mew Orleans 0. Galveston	47 54 42 23 5	835 1,525 1,270 909 155	3 24 26 13 1	40 585 339 228 10	7 7 11 70	108 150 360 2, 998 22	130 178 371 54 28	2, 051 3, 350 10, 062 2, 045 639	4 34 20 23 2	1, 3 3, 8
Total	4, 348	121, 510	302	5, 763	16, 3 9 9	344, 907		,		
. Portland 2. Boston 3. New York 5. Philadelphia 5. Baltimore	1, 419 614 1, 046 497 399	42. 811 20, 827 30, 124 14, 249 6, 348	156 40 69 8 12	3, 273 1, 141 869 202 185	7, 157 2, 811 3, 203 1, 496 704	153, 732 59, 312 69, 473 31, 087 11, 200				
5. Norfolk 7. Savannah 8. Mobile 9. New Orleans 0. Galveston	154 56 55 85 23	1, 996 1, 191 1, 390 1, 871 703	3 4 1	30 48 15	119 282 250 262 115	2, 021 4, 233 5, 363 5, 942 2, 544				
		UNRIG	GED CRA	FT-Contin	ued.					
Total	400	12, 842				·	1, 584	50, 398		
Portland	45 42 234 72 3	1, 125 810 7, 251 8, 449 105					69 82 970 187 103	2, 060 1, 678 34, 122 4, 879 3, 288		
		i		i	i i	i i	91	1, 821	1 '	

EARNINGS AND EXPENSES—Continued.

TABLE 14.—EMPLOYES AND WAGES IN DETAIL—Continued.

ALL CRAFT—Continued.

	AND STO	Wards Rekeepers.	WÀ	ITERS.	В	DY8.		RMAIDS AND RDESSES.	CARPI	ENTERS.
districts.	Number.	Wages per month.	Number.	Wages per month.	Number.	Wages per month.	Number.	Wages per month.	Number.	Wages per month
Total	430	\$19,651	1,614	\$31,864	447	\$6, 067	381	\$6,494	145	\$5, 28
eamerslling vessels	339 91	16, 163 3, 488	1,614	31, 864	233 214	3, d99 2, 368	381	6, 494	30 115	1. 46 3, 82
origged craft										
		STE	AMERS-	Continued.						
Total	339	16, 163	1,614	31, 864	233	3, 699	381	6, 494	30	1.4
Portland	18	1,002	137	3, 062	34	775	22	426		
Boston	50 118	2, 795 6, 189	443 198	9, 068 10, 560	15 59	320 986	60 153	1, 223 2, 686	12	5
Philadelphia	38	1, 761	201	3, 564	29	295	35	577	3	1
Baltimore	38 52	1,811	172	2, 871	29 11	153	35 51	696		
Norfolk	4	85		48	3	28	16	169	ļ	
Savannah	26 16	1,115 610	83 41	1, 507 580	19	344 532	16 20	257 329	3	•••••
Mobile	16	745	34		47 15	256	7	115	11	
Galveston	1	50	1	10	1	10	l i	16	i i	•
Total	91	3.488			214	2 368			115	
Total	91	·			214	2, 368			115	
Portland	:	1, 883			160	1, 805			37	
Portland	. 48	1, 883 875			160 31	1, 805 344			37 31	1,
Portland	. 48 24 17	1, 883			160	1, 805			37 31 45	1,
Portland Boston New York Philadelphia	. 48	1, 883 875 655			160 31	1, 805 344			37 31	1,
Portland Boston New York Philadelphia Baltimore	. 48 24 17	1, 883 875 655			160 31 10	1, 805 344 108			37 31 45 1	1,
Portland Boston New York Philadelphia Baltimore Norfolk	. 48 24 17	1, 883 875 655			160 31 10	1,805 344 108			37 31 45 1	1,
Portland Boston New York Philadelphia Baltimore Norfolk Savannah	. 48 24 17 1	1, 883 875 655 30			160 31 10	1, 805 344 108 35			37 31 45 1	1,
Portland Boston New York Philadelphia Baltimore Norfolk Savannah Mobile New Orleans	. 48 24 17	1, 883 875 655			160 31 10	1, 805 344 108			37 31 45 1	1,
Portland Boston New York Philadelphia Baltimore Norfolk Savannah Mobile New Orleans	. 48 24 17 1	1, 883 875 655 30			160 31 10 4 4	1, 805 344 108 35 40			37 31 45 1	1
Portland Boston New York Philadelphia Baltimore Norfolk Savannah Mobile New Orleans	. 48 24 17 1	1, 883 875 655 30			160 31 10 4 4	1, 805 344 108 35 40			37 31 45 1	1,
Portland Boston New York Philadelphia Baltimore Norfolk Savannah Mobile New Orleans	. 48 24 17 1	1, 883 875 655 30	GED CRA	FT—Contin	160 31 10 4 4 2	1, 805 344 108 35 40			37 31 45 1	1,
Portland Boston New York Philadelphia Baltimore Norfolk Savannah Mobile New Orleans Galveston	. 48 24 17 1	1, 883 875 655 30	GED CRA	FT—Coutin	160 31 10 4 4 2	1, 805 344 108 35 40			37 31 45 1	1,
Portland Boston New York Philadelphia Baltimore Norfolk Savannah Mobile New Orleans	. 48 24 17 1	1, 883 875 655 30	GED CRA	FT—Coutin	160 31 10 4 4 2	1, 805 344 108 35 40			37 31 45 1	1,
Portland Boston New York Philadelphia Baltimore Norfolk Savannah Mobile New Orleans Galveston Total Portland	. 48 24 17 1	1, 883 875 655 30	GED CRA	FT—Coutin	160 31 10 4 4 2	1, 805 344 108 35 40			37 31 45 1	1,
Portland Boston New York Philadelphia Baltimore Norfolk Savannah Mobile New Orleans Galveston Total Portland Boston	. 48 24 17 1	1, 883 875 655 30	GED CRA	FT—Contin	160 31 10 4 4 2	1, 805 344 108 35 40			37 31 45 1	1,
Portland Boston New York Philadelphia Baltimore Norfolk Savannah Mobile New Orleans Galveston Total Portland Boston New York	. 48 24 17 1	1, 883 875 655 30	GED CRA	FT—Coutin	160 31 10 4 4 2	1, 805 344 108 35 40			37 31 45 1	1,
Portland Boston New York Philadelphia Baltimore Norfolk Savannah Mobile New Orleans Galveston Total Portland Boston New York Philadelphia	. 48 24 17 1	1, 883 875 655 30	GED CRA	FT—Coutin	160 31 10 4 4 2	1, 805 344 108 35 40			37 31 45 1	1,
Portland Boston New York Philadelphia Baltimore Norfolk Savannah Mobile New Orleans Galveston Total Portland Boston New York	. 48 24 17 1	1, 883 875 655 30	GED CRA	FT—Contin	160 31 10 4 4 2	1, 805 344 108 35 40			37 31 45 1	1,
Portland Boston New York Philadelphia Baltimore Norfolk Savannah Mobile New Orleans Galveston Total Portland Boston New York Philadelphia Baltimore	. 48 24 17 1	1, 883 875 655 30	GED CRA	FT—Coutin	160 31 10 4 4 2	1, 805 344 108 35 40			37 31 45 1	1,
Portland Boston New York Philadelphia Baltimore Norfolk Savannah Mobile New Orleans Galveston Total Portland Boston New York Philadelphia Baltimore Norfolk Norfolk	. 48 24 17 1	1, 883 875 655 30	GED CRA	FT—Coutin	160 31 10 4 4 2	1, 805 344 108 35 40			37 31 45 1	1,
Portland Boston New York Philadelphia Baltimore Norfolk Savannah Mobile New Orleans Galveston Total Portland Boston New York Philadelphia Baltimore Norfolk Savannah	. 48 24 17 1	1, 883 875 655 30	GED CRA	FT—Contin	160 31 10 4 4 2	1, 805 344 108 35 40			37 31 45 1	1,
Portland Boston New York Philadelphia Baltimore Norfolk Savannah Mobile New Orleans Galveston Total Portland Boston New York Philadelphia Baltimore Norfolk Savannah Mobile Norfolk Savannah Mobile Norfolk Savannah Mobile New Orleans	. 48 24 17 1	1, 883 875 655 30	GED CRA	FT—Coutin	160 31 10 4 4 2	1, 805 344 108 35 40			37 31 45 1	1,
Portland Boston New York Philadelphia Baltimore Norfolk Savannah Mobile New Orleans Galveston Total Portland Boston New York Philadelphia Baltimore Norfolk Savannah Mobile	. 48 24 17 1	1, 883 875 655 30	GED CRA	FT—Coutin	160 31 10 4 4 2	1, 805 344 108 35 40			37 31 45 1	3, 1, 1,

GENERAL OPERATIONS BY CLASSES—Continued.

TABLE 17.—TOWING BOATS—NUMBER, TONNAGE, VALUATION, FINANCIAL ACCOUNT, AND DETAILS OF CREWS AND WAGES OF TOWING BOATS.

DISTRICTS.	Number.	Tonnage.	Valuation.	Gross earnings.	Expenses.	Net earnings.	Number making ordinary crews.	Total wages paid during year.
Total	1,095	61, 359	\$10, 203, 330	\$10, 131, 921	\$8, 526, 733	\$1, 605, 188	6, 152	\$3 , 042, 066
1 Portland	536	2, 782 4, 412 35, 122 5, 857 4, 038	395, 900 702, 580 5, 886, 500 1, 123, 000 698, 900	355, 023 772, 233 5, 835, 780 1, 135, 885 646, 001	279, 864 668, 349 5, 017, 893 879, 865 546, 762	75, 159 103, 884 817, 887 256, 020 99, 239	276 458 3, 174 634 515	114, 059 213, 583 1, 656, 862 308, 113 255, 920
6. Norfolk	64 53	2, 114 3, 332 2, 741 500 461	317, 600 526, 350 415, 000 61, 500 76, 000	833, 795 450, 412 831, 833 80, 540 190, 419	259, 527 383, 283 291, 157 65, 830 134, 203	74, 268 67, 129 40, 676 14, 710 56, 216	298 334 301 94 68	111, 098 162, 328 151, 545 36, 967 31, 591

TABLE 18.—YACHTS—NUMBER, TONNAGE, AND VALUATION OF YACHTS AND PLEASURE BOATS.

STEAMERS AND SAILING VESSELS.

DISTRICTS.	Number.	Tonnage.	Valuation.
All districts	798	25, 756	\$6, 202, 065

STEAMERS.

Total		11, 328	3, 520, 610
1. Portland	2	48	11, 500
2. Boston	36	1, 856	469, 300
3. New York	100	8, 215	2, 723, 610
4. Philadelphia	13	529	165, 700
5. Baltimore	4	331	87, 000
6. Norfolk	1	42	5, 000
7. Savannah	7 ,	154	41, 500
8. Mobile	4 :	83	8, 800
9. New Orleans			
10. Galveston	3	75	8, 200

SAILING VESSELS.

Total	628	14, 428	2, 681, 455
1. Portland	31	418	35, 690
2. Boston	175	4, 122	740, 405
3. New York	319	8, 357	1, 764, 085
4. Philadelphia	56	926	102, 040
5. Baltimore	9	124	9, 820
6. Norfolk	2	25	1, 250
7. Savannah	9 '	118	6, 500
8. Mobile	10	94	8, 350
9. New Orleans	3	39	2. 250
0. Galveston	14	205	11, 06

GENERAL OPERATIONS BY CLASSES—Continued.

TABLE 20.—MISCELLANEOUS CRAFT—NUMBER, TONNAGE, VALUATION, FINANCIAL ACCOUNT, AND DETAILS OF CREWS AND WAGES OF MISCELLANEOUS CRAFT.

STEAMERS AND SAILING VESSELS.

DI STRICTS .	Number.	Tonnage.	Valuation.	Gross earnings.	Expenses.	Net earnings.	Number making ordinary crews.	Total wages paid during year.
All districts	205	71, 680	\$5, 526, 930	\$1,553,358	\$1, 322, 149	\$2 31, 209	1, 320	\$705,06
		STEAME	RS.					
Total	153	69, 127	5, 451, 570	1, 553, 358	1, 322, 149	231, 299	1, 320	705, 06
Portland Boston New York Philadelphia Baltimore	1 4 98 16 5	408 1,334 40,740 2,872 1,713	15, 000 124, 000 3, 603, 170 366, 800 156, 500	5. 352 27, 250 751, 183 210, 986 47, 513	4, 600 23, 200 622, 379 179, 647 40, 429	752 4, 050 128, 804 31, 339 7, 084	4 37 618 132 24	2, 79 18, 59 373, 43 69, 93 17, 52
Norfolk	10 4 14	1, 389 104 20, 519 48	68, 000 18, 600 1, 082, 000 17, 500	54, 949 8, 577 443, 385 4, 163	46, 760 7, 246 394, 338 3, 550	8, 189 1, 331 49, 047 613	52 15 432	22, 46 4, 30 194, 14 1, 88
	SAI	LING VES	SELS. (a)			<u>i</u>	·	1
Total	52	2, 553	75, 360	·		<u></u>		·
Portland Boston New York Philadelphia Baltimore	3 1 28 10	47 46 1, 186 1, 135 19	850 1,500 45,480 20,800 1,500					
NorfolkSavannah	1 5	8 59	130 2, 500		!			
Mobile New Orleans Galveston	2	15 38	1, 100 1, 500					

 $[\]boldsymbol{\alpha}$ Number, tonnage, and valuation only reported.

TABLE 21.-NO TRAFFIC REPORT-NUMBER, TONNAGE, AND VALUATION OF ALL STEAMERS AND SAILING VESSELS FOR WHICH NO TRAFFIC REPORT WAS RECEIVED.

STEAMERS AND SAILING VESSELS.

DISTRICTS.	Number.	Tonnage.	Valuation.
All districts	1, 228	204, 185	\$11, 634, 425
STFAMI	rue		

Total	397	95, 392	8, 035, 900
1. Portland	16	2, 148	236, 900
2. Boston	44	7, 941	767, 100
3. New York	154	56, 453	4, 439, 000
4. Philadelphia	62	10, 747	1, 152, 550
5. Baltimore	21	4, 593	355, 400
6. Norfolk	23	1.759	188, 500
7. Savannah	35	5, 542	475, 200
8. Mobile	25	2.016	176, 550
9. New Orleans	7	3, 659	199, 900
10. Galveston	10	534	44, 800

SAILING VESSELS.

Total	831	108, 793	3, 598, 525
l. Portland	110	28, 929	916, 865
2. Boston	114	23, 478	778, 670
3. New York	231	38. 255	1, 177, 280
. Philadelphia	68	6, 718	254, 420
Baltimore	63	2,813	125, 420
Norfolk	87	2, 721	110, 700
Savannah	58	853	43, 025
Mobile	52	3, 344	136, 400
. New Orleans	36	582	28, 730
Galveston	12	1. 100 i	27, 015

GENERAL OPERATIONS BY CLASSES—Continued.

TABLE 22.—SUMMARY—Continued.

STEAMERS-Continued.

DISTRICTS.	Number.	Tonnage.	Valuation.	Trips.	Miles.	Freight moved. (Tons.)	Passengers carried.
7. Savannah	189	37, 121	\$2,958,850	53, 943	3, 075, 250	2, 681, 398	447, 005
Passenger and freight		26, 781	1, 805, 700	25, 533	2, 991, 370	2, 681, 398	152, 228
Towing	64	3, 332 1, 037	526, 350 61, 500	28, 410	92 990		295, 437
Ferry Yachts	7 1	1, 037	41, 500	20, 410			
Harbor	1 1	171	30, 000				
Miscellaneous.	1	104	18, 600				
No traffic report	35	5, 542	475, 200			· · · · · · · · · · · · · · · · · · ·	•••••••
8. Mobile	126	11, 413	967, 750	12, 166	737, 860	375, 789	90, 956
Passenger and freight	44	6, 573	367, 400	12, 166	737, 860	375, 789	90, 956
Towing	53	2,741	415, 000	. 			
Yachts	4 .	83					
No traffic report	25	2, 016	176, 550		• • • • • • • • • • • • • • • • • • • •	·	• • • • • • • • • • • • • • • • • • • •
9. New Orleans	56	31, 407	1, 712, 700	8, 194	334, 180	568, 259	73, 777
Passenger and freight	18	6, 402	317, 300	3, 438	324, 204	568, 259	18, 944
Towing	14	500	61, 500	······································	· · · · · · · · · · · · · · · · · · ·	• • • • • • • • • • • • • • • • • • • •	
Ferry	1	78 • 249	12, 000 40, 000	4, 756	9, 976		54, 833
Harbor	14	20, 519	1, 082, 000				
	1 7	3, 659	199, 900				
No traffic report	'	3,039	199, 900		••••••	.'	• • • • • • • • • • • • • • • • • • • •
0. Galveston	38	2, 771	281, 000	3, 145	804, 890	488, 632	5, 96
Passenger and freight	8	716	54, 500	3, 145	804, 890		5. 98
Towing	11	461	76, 000			 .	••••••
Yachts	3	75	8, 200			. .	
Harbor	5	937	80, 000			· · · · · · · · · · · · · · · · · · ·	
Miscellaneous	1 1	48	17, 500				
No traffic report	10	534	44, 800	<i></i>		. 	.

STEAMERS—Continued.

DISTRICTS.	Gross earnings.	Expenses.	Net earnings.	Common seamen employed.	Average wages per month paid common seamen.	Number making ordinary crews.	Total wages paid during year.
Total	\$48,003,020	\$38, 168, 789	\$9,834,231	1, 019	\$26, 98	25, 653	\$11, 239, 169
1. Portland	1, 825, 407	1, 471, 496	353,911	30	26.00	1, 193	444, 760
Passenger and freight. Towing Ferry Harbor. Miscellaneous	1, 394, 214 355, 023 32, 818 38, 000 5, 352	1, 125, 757 279, 864 30, 775 30, 500 4, 600	268, 457 75, 159 2, 043 7, 500 752		26.00	841 276 51 21	296, 720 114, 059 16, 951 12, 240 2, 790
2. Boston	7, 361, 007	5, 933, 030	1, 427, 977	! 	28. 89	3, 297	1, 269, 799-
Passenger and freight. Towing Ferry Harbor Miscellaneous	6, 157, 986 772, 233 347, 255 56, 283 27, 250	4, 892, 136 668, 349 299, 708 49, 637 23, 200	1, 265, 850 103, 884 47, 547 6, 646 4, 050			2, 672 458 90 40 37	1, 058, 953- 213, 563- 57, 817 20, 856- 18, 590-
3. New York	22, 965, 581	18, 412, 347	4, 553, 234	452	25. 67	10, 995	5, 609, 595-
Passenger and freight	11, 638, 286 5, 835, 780 4, 214, 188 526, 144 751, 183	8, 731, 193 5, 017, 893 3, 608, 478 432, 404 622, 379	2, 907, 093 817, 887 605, 710 93, 740 128, 804			5, 563 3, 174 1, 258 382 618	2, 341, 339 1, 656, 862 1, 006, 510 231, 461 378, 433.
4. Philadelphia	4, 948, 350	3, 666, 329	1, 282, 021	155	23. 20	3, 115	1, 267, 027
Passenger and freight. Towing Ferry Harbor Miscellaneous	2, 979, 166 1, 135, 885 586, 835 35, 478 210, 986	2, 109, 551 879, 865 462, 373 34, 893 179, 647	869, 615 256, 020 124, 462 585 31, 339	155		2, 142 634 183 24 132	756, 928- 306, 113 137, 653 12, 399 69, 997
5. Baltimore	4, 074, 308	3, 127, 721	946, 587	93	24.70	2, 337	823, 280
Passenger and freight. Towing Ferry Harbor Miscellaneous	3, 239, 950 646, 001 99, 844 41, 000 47, 513	2, 436, 819 546, 762 68, 112 35, 599 40, 429	5, 401	93		1, 696 515 42 60 24	614, 868 256, 920 19, 138 25, 834 17, 530

GENERAL OPERATIONS BY CLASSES—Continued.

TABLE 22.—SUMMARY—Continued.

STEAMERS-Continued.

DISTRICTS.	Gross earnings.	Expenses.	Net carnings.	Common seamen employed.	A verage wages per mouth paid common seamen.	Number making ordinary crews.	Total wages paid during pear.
6. Norfolk	\$733, 662	\$ 572, 911	\$160,751	7	\$15.43	895	\$286, 26 0
Passenger and freight	270, 550 333, 795 53, 100	197, 801 259, 527 50, 073	72, 749 74, 268 3, 027	7		488 298 33	131, 477 111, 098 11, 205
Harbor Miscellaneous	21, 268 54, 949	18, 750 46, 760	2, 518 8, 189			24 52	10, 020 22, 460
7. Savannah.	2, 562, 634	2, 211, 697	350, 937	7	21.43	1, 342	527, 705
Passenger and freight	2, 029, 111	1, 760, 323	268, 788	7	21.43	900	323, 249
Towing	450, 412	383, 283	67, 129			334	162, 328
Ferry	53, 054	45, 002	8, 052	'		50	25, 234 12, 590
Harbor Miscellaneous	21, 480 8, 577	15, 843 7, 246	5, 6 37 1, 331	;	'	43 15	4, 304
8. Mobile	979, 715	833, 226	146, 489	11	32. 73	1, 246	392, 542
Passenger and freight	647, 882 331, 833	542, 069 291, 157	105, 813 40, 676	. 11	82. 73	945 301	240, 997 151, 545
9. New Orleans	2, 224, 114	1, 701, 696	522, 418	70	42. 83	1,047	410, 839
Passenger and freight	1, 685, 854 80, 540	1, 231, 311 65, 830	454, 543 14, 710	70	42.83	500 94	172, 796 36, 967
Ferry	5, 875	3, 717	2. 158		·	3	2, 340
Harbor	8, 460	6, 500	1,960			18	4,590
Miscellaneous	443, 385	394, 338	49, 047			432	194, 146
10. Galveston	328, 242	238, 335	89, 906	1	22.00	186	77, 365
Passenger and freight	69, 260	48, 481	20, 779	1	22,00	80	27, 210
Towing	190, 419	134, 203	56, 216	1		68	31.59
Harbor	64, 400	52, 102	12, 298			32	16, 68
Miscellaneous	4, 163	3, 550	613	1		6	1.880

SAILING VESSELS.

DISTRICTS.	Num- ber.	Tonnage.	Valuation.	Trips.	Miles.	Freight moved. (Tons.)	Gross earnings.	Expenses.	Net earnings.	Com- mon seamen em- ployed.	Average wages per month paid common seamen.	Num- ber making ordi- nary crews.	Total wages paid during year.
Total	7, 108	1, 401, 985	\$46, 284, 507	227, 699	50, 228, 500	39, 801, 533	\$33, 113, 416	\$24, 474, 085	\$8, 639, 331	16, 399	\$ 21. 03	33, 097	\$ 8, 838, 774
1. Portland	1, 678	460, 589	13, 878, 422	29, 842	6, 469, 960	4, 731, 379	9, 858, 812	7, 306, 627	2, 552, 185	7, 157	21. 48	12, 573	2, 570, 903
Freight	11 31 3	430, 981 214 418 47 28, 929	12, 919, 607 5, 410 35, 690 850 916, 865						2, 548, 975 3, 210			12, 550 23	3, 720
2. Boston	977	314, 820	9, 947, 225	25, 614	7, 529, 580	7, 260, 053	7, 109, 820	5, 294 , 011	1, 815, 809	2, 811	21. 10	5, 123	1, 719, 704
Freight Harbor Yachts Miscellaneous (a) No traffic report	32 175	285, 700 1, 474 4, 122 46 23, 478	8, 273, 500 153, 150 740, 405 1, 500 778, 670	25, 614		7, 200, 053	86, 152	5, 230, 381 63, 630					1, 698 , 494 21, 210
3. New York	2, 017.	402, 704	14, 331, 805	70, 986	17, 568, 670	12, 833, 857	9, 575, 237	7, 154, 616	2. 420, 621	3, 203	21. 69	7, 607	2, 674, 610
Freight	226 319 28	343, 868 11, 038 8, 357 1, 186 38, 255	10, 672, 110 672, 850 1, 764, 085 45, 480 1, 177, 280				1, 095, 614				·	6, 943 664	2, 375, 328 299, 282
4. Philadelphia	705	147, 649	5, 038, 200	15, 486	4, 395, 490	4, 927, 123	4, 390, 852	3, 049, 203	1, 341, 649	1, 496	20. 78	3, 145	939, 557
Freight Harbor Yachts Miscellaneous (a) No traffic report	56 10	138, 404 466 926 1, 135 6, 718	4, 576, 940 84, 900 102, 040 20, 800 254, 420				31. 697	22, 140					

a Number, tonnage, and valuation only reported.

GENERAL OPERATIONS BY CLASSES—Continued.

TABLE 22.—SUMMARY—Continued.

SAILING VESSELS-Continued.

districts.	Num- ber.	Tonnage.	Valuation.	Trips.	Miles.	Freight moved. (Tons.)	Gross earnings.	Expenses.	Net earnings.	Com- mon seamen em- ployed.	Average wages per month paid common seamen.	Num- ber making ordi- nary crews.	Total wages paid during year.
i. Baltimore	533	40, 535	\$1,466,060	22, 036	3, 986, 470	3, 450, 372	\$970, 68 5	\$719,026	\$ 251, 65 9	704	\$15.91	1, 926	\$356 , 899
Freight		37, 361	1, 317, 620		3, 986, 470	3, 450, 372	957, 379	708, 901	248, 478	704	15. 91	1, 908	351, 87
Harbor	4 9	218 124	11,700 9,820	· • • • • • • • • • • • • • • • • • • •		·	13, 306	10, 125	3, 181	ļ 	¦	18	5, 02
Yachts Miscellaneous (a)		124	1,500										• • • • • • • • • • • • • • • • • • • •
No traffic report		2, 813	125, 420										
l. Norfolk	286	10, 007	413, 760	10, 920	2, 547, 200	2, 704, 717	184, 295	136, 686	47, 609	119	16.98	578	102, 180
Freight	187	6, 802	253, 980	10, 920	2, 547, 200	2, 704, 717	160, 184	119, 436	40, 748	119	16, 98	536	89, 24
Harbor	9	451	47, 700		2,021.200	2, 104, 111	24, 111	17, 250	6, 861		10. 50	42	12.94
Yachts	2	25	1, 250										
Miscellaneous (a)	87	8	130	· • • • • • • • • • • • • • • • • • • •							• • • • • • • • • • • • • • • • • • • •	•••••	· - · - · · · · ·
No traffic report	81	2, 721	110, 700	• • • • • • • • • • • • • • • • • • • •	<u></u>	•••••					•••••		
. Savannah	299	8, 432	420, 925	23, 636	4, 379, 720	2, 433, 097	284, 284	228, 794	55, 490	. 282	15. 01	733	141, 920
Freight	185	6, 164	244, 180	23, 636	4, 379, 720	2, 433, 097	192, 266	154, 209	38, 057	282	15. 01	569	97, 140
Harbor	42	1, 238	124, 720				92, 018	74, 585	17, 433			164	44, 78
Yachts	9	118	6, 500	· • • • • • • •							· · · · · · · · ·	[• • • • · · · · · ·
Miscellaneous (a) No traffic report	5 58	59 853	2, 500 43, 025						· · · · · · · · · · · · · · · · · · ·				• • • • • • • • • • • • • • • • • • •
i. M obile	243	9, 671	429, 160	10, 426	1, 500, 970	651, 176	318, 221	247, 052	71, 169	250	21. 45	566	137, 78
Freight	156	5, 674	245, 160	10, 426	1, 500, 970	651, 176	275, 387	213, 632	61, 755	250	21, 45	500	119.45
Harbor	- 25	550	39, 250	10, 420	1, 300, 970	031, 170		33, 420	9, 414	250	21.45	66	18, 32
Yachts	10	94	8, 350										
No traffic report	52	3, 344	136, 400				•••••		•••••			·	• • • • • • • • • • • • • • • • • • • •
. New Orleans	214	4, 247	194, 360	10, 864	1, 009, 230	595, 967	260, 585	211, 215	49, 370	262	22. 68	.547	132, 08
Freight	168 5	3, 557 54	159, 420 2, 860	10, 864	1, 009, 230	595, 967	254, 655 5, 930	206, 420 4, 795	48, 235 1, 135	262	22. 68	538	129, 22
Yachts	3	39	2, 250					4, 185					2, 80
Miscellaneous (a)	2	15											
No traffic report	36	582	28, 730	• • • • • • • • • • • • • • • • • • • •					••••••				
. Galveston	156	3, 331	164, 590	7, 889	841, 210	213, 792	160 , 62 5	126, 855	33, 770	115	22. 12	299	63, 14
Freight	123 6	1, 851	115, 110	7, 889	841,210	213, 792	151, 569	119, 700	31, 869 1, 901	115		280	59, 56
Yachts	14	137 205	9, 900 11, 065	• • • • • • • •			9, 056	7, 155			. • • • • • • • • • • • • • • • • • • •	19	3, 58
Miscellaneous (a)	i	38	1,500	· • • • • • • • • • • • • • • • • • • •									
No traffic report		1, 100	27, 015									!	

UNRIGGED CRAFT.

districts.	Number.	Tonnage.	Valuation.	Freight moved. (Tons.)	Gross earn- ings.	Expenses.	Net earnings.	Number making ordinary crews.	Total wages paid during year.
Total	3, 425	623, 483	\$7, 83 7 , 440	12, 102, 694	\$ 9, 031, 196	\$7, 583, 918	\$1,447.278	4, 875	\$2,045,156
1. Portland 2. Boston 3. New York 4. Philadelphia 5. Baltimore	214 1,812	16, 689 35, 696 360, 109 144, 121 26, 152	197. 795 485, 675 5, 233, 670 1, 421, 250 225, 650	216, 459 1, 208, 026 9, 408, 113 238, 247 81, 014	424, 500 568, 183 6, 879, 966 712, 812 182, 633	352, 160 460, 309 5, 861, 843 567, 386 133, 563	72, 340 107, 874 1, 018, 123 145, 426 49, 070	183 235 3, 438 413 215	50, 160 67, 483 1, 607, 706 123, 572 77, 717
6. Norfolk 7. Savanuah 8. Mobile 9. New Orleans 10. Galveston	12! 292 111 13 51	8, 520 17, 474 7, 763 650 6, 309	43, 665 128, 025 43, 310 3, 000 55, 400	134, 222 726, 053 49, 980 19, 980 20, 000	65, 900 102, 958 75, 444 2, 800 16, 000	54, 564 82, 759 56, 654 2, 000 12, 680	11, 336 20, 199 18, 790 800 3, 320	147 131 72 3 38	33, 238 46, 006 29, 153 1, 440 8, 663

a Number, tonnage, and valuation only reported.

FUEL ACCOUNT.

TABLE 23.—AMOUNT AND VALUE OF COAL AND WOOD USED ON ALL STEAMERS OF THE ATLANTIC COAST AND GULF OF MEXICO IN 1889.

,	Total cost of	COA	L.	wood.			
DISTRICTS.	fuel.	Tons.	Cost.	Cords.	Cost.		
Total	\$7,751,487	2, 298, 418	\$ 7, 512, 650	130, 585	\$238, 837		
1. Portland	319, 983	74, 619	319, 658	325	325		
2. Boston	1, 080, 077 4, 077, 965	320, 385 1, 239, 822	1, 080, 077 4, 063, 205	4, 838	14, 760		
4. Philadelphia	821, 575	301, 548	821. 125		450		
5. Baltimore	497, 030	170, 839					
6. Norfolk	133, 225	33, 291	108, 755	16, 430	24, 470		
7. Savannah	335, 835	65, 502	258, 196 · ·		77, 639		
8. Mobile	149, 91:2	13, 023	5 0, 543	60, 051	99, 369		
9. New Orleans	30 0, 031	74, 890	2 87, 207	8, 997 .	12, 824		
10. Galveston	35, 854	4, 499	26, 854	5,545	9.000		

COMPARATIVE STATISTICS.

TABLE **31.**—STEAMERS IN 1880 AND 1889—NUMBER, TONNAGE, AND VALUATION OF STEAMERS IN 1880 AND 1889, AS REPORTED BY THE TENTH AND ELEVENTH CENSUSES.

STATES AND YEARS.	Number.	Tonnage.	Valuation.	STATES AND YEARS.	Number.	Tonnage.	Valuation.
Total		613, 986. 02 837, 162. 00	\$45, 394, 700 73, 554, 540	District of Columbia1880	34 42	6, 945, 77 8, 939, 00	\$595, 000 654, 000
Maine		16, 018, 21 26, 522, 00	1, 078, 300 2, 463, 750	Virginia	89 100	6, 251. 02 8, 672. 00	494, 400 786, 956
New Hampshire		267. 79 396. 00	30, 600 47, 400	North Carolina	37 66	3, 720, 16 5, 562, 00	185, 800 445, 6 00
Massachusetts		47, 427, 43 84, 670, 00	3, 070, 000 7, 226, 930	South Carolina	41 61	5, 242. 10 7, 138. 00	242, 700 618, 900
Rhode Island		20, 046, 39 23, 6 20, 0 0	1, 393, 150 1, 806, 200	Georgi á	44 63	13, 331, 46 25, 262, 00	1, 387, 300 1, 857, 050
Connecticut		27, 576, 99 40, 391, 00	1, 575, 600 3, 233, 300	Florida	70 131	6, 826 , 6 0 9, 386, 00	448, 500 948, 100
New York18		276, 777, 38 391, 172, 00	20, 792, 150 36, 495, 410	Alabama	43 49	7, 168, 17 4, 915, 00	257, 600 394, 650
New Jersey		41, 811, 17 24, 081, 00	2, 402, 150 2, 354, 700	Mississippi1880 1889	11	1, 833. 00	107, 90
Pennsylvania		54, 086, 66 63, 535, 00	4, 516, 300 5, 882, 4 00	Louisiana	18 56	25, 421. 68 31, 407. 00	2, 555, 000 1, 712, 700
Delaware		5, 877. 97 14, 757. 00	302, 300 1, 599, 500	Texas	35 38	4, 351. 91 2, 771. 00	196, 90 281, 00
Marylan d		44, 837. 16 62, 133. 00	3, 870, 950 4, 638, 100		f	,	

COMPARATIVE STATISTICS—Continued.

TABLE 25.—GROSS EARNINGS AND WAGES OF STEAMERS IN 1880 AND 1889—GROSS EARNINGS OF STEAMERS OPERATING IN 1880 AND 1889, AND AMOUNT PAID OUT IN WAGES DURING THOSE YEARS, AS REPORTED BY THE TENTH AND ELEVENTH CENSUSES.

STATES AND YEARS.	Gross earnings	. Paid in wages.	STATES AND YEARS.	Gross carnings.	Paid in wages.
Total	1880 \$44, 430, 765 1889 48, 003, 020	\$12. 964, 874 11, 239, 169	District of Columbia	\$300, 576 430, 023	\$82, 056 63, 37
Maine	.1880 882, 158 1889 1, 786, 352	334, 014 432, 888	Virginia	567, 193 597, 274	185, 45 207, 66
New Hampshire	. 1880 19, 280 1889 39, 055	6,500 11,872	North Carolina	404, 864 250, 388	104, 95; 98, 61
Massachusetts	.1880 3, 127, 512 1889 6, 387, 850	897, 923 1, 039, 708	South Carolina	385, 55 <u>4</u> 496, 679	150, 28 159, 11
Rhode Island	.1880 1, 293, 396 1889 973, 157	517, 123 330, 091	Georgia	1, 084, 430 1, 532, 375	320, 7 <i>2</i> 279, 53
Connecticut	.1880 2, 017, 650 1889 2, 813, 969	693, 663 662, 961	Florida	504, 088 877, 948	158, 816 280, 06
New York	.1880 22, 231, 956 1889 19, 357, 135	5, 775, 013 4, 679, 356	Alabama	437, 465 491, 279	251, 22 164, 08
	.1880 2, 611, 048 1889 1, 664, 984	833, 891 453, 020	Misaissippi	144, 068	37, 430
Pennsylvania	. 1880 1889 3, 362, 963 3, 527, 247	897, 472 963, 913	Louisiana	1, 654, 843 2, 224, 114	506, 409 410, 830
Delaware	. 1880 138, 293 1889 550, 596	54, 179 137, 372	Texas	335, 756 328, 242	163, 05 77, 36
daryland	. 1880 3, 071, 740 1889 3, 530, 285	1, 032, 135 749, 875			

TABLE 26.—STEAMERS' CREWS AND WAGES IN 1880 AND 1889—NUMBER OF MEN CONSTITUTING ORDINARY CREWS EMPLOYED ON STEAMERS OPERATING IN 1880 AND 1889, AS REPORTED BY THE TENTH AND ELEVENTH CENSUSES, WAGES PAID, AND AVERAGES OF ANNUAL PAY AND INCREASE OR DECREASE PER MAN.

STATES AND YEARS.	Total number of men, ordinary crews.	Total wages paid.	WOODE	in annual average	Decrease in annual average wages per man.	STATES AND YEARS.	Total number of men, ordinary crews.	Total wages paid.	Average annual wages per man.	inannual average	Decrease ir annual average wages per man.
Total1880 1889		\$12, 964, 874 11, 239, 169	1			District of Columbia1880 1889	230 342	\$82, 050 63, 379			\$171.42
Maine	688 1, 168	334, 014 432, 888			114.87	Virginia1880 1889	479 573	185, 451 207, 6 67	387. 16 362. 42		24.74
New Hampshire1880 1889	17 25	6, 500 11, 872	382. 35 474. 88	\$92.5 3		North Carolina 1880 1889	268 384	104, 955 98, 619			134. 80
Massachusetts	2, 053 2, 551	897, 923 1, 039, 708			29. 80	South Carolina 1880 1889	328 423	150, 286 159, 111	376. 15		82.04
Rhode Island1880 1889	811 746	517. 123 330, 091		·		Georgia	481 659	320, 727 279, 535	424. 18		242. 61
Connecticut1880 1889	1, 224 1, 327	693, 663 662, 961		'		Florida	548 738	158, 816 280, 085	379. 52		
New York	10, 375 9, 141	5, 775, 013 4, 679, 356				Alabama	587	251, 220 164, 086	357. 86 279. 53	 	78.33
New Jersey1880 1889	1, 243 881	833, 891 453, 020		, 		Mississippi	181	37, 430			
Pennsylvania1880 1889	1, 897 2, 394	897, 472 963, 913		· · · · · · · · · · · · · · · · · · · ·		Louisiana	514 1, 047	506, 405 410, 839	392. 40	· • • • • • • • • • • • • • • • • • • •	592. 82
Delaware	219 367	54, 179 137, 372	247. 39 374. 31	126. 92	,	Texas	344 186	163, 051 77, 362			58. U
Maryland1880 1889	2, 489 1, 933	1, 032, 135 749, 875					1		!		

COMPARATIVE STATISTICS—Continued.

TABLE 28.—FLEETS FOR THE 10 YEARS 1880-1889—Continued.

1880-Continued.

		TAL.	STEAMERS.		BAILING	VESSELA.	UNRIGGED CRAFT.		
CUSTOMS DISTRICTS.	Number.	Tonnage.	Number.	Tonnage.	Number.	Tonnage.	Number.	Tonnage.	
[assachusetts	2, 299	430, 182	152	48, 687	2, 136	378, 333	11	3, 16	
Newburyport	66	13, 188	13	773	51	12, 328	:i 2	8	
Gloucester	476	28, 195	4	73	472	28, 122			
Salem and Beverly	68	6,651	4	811	64	5,840		• • • • • • • • • • • • • • • • • • • •	
MarbleheadBoston and Charlestown	61 808	2, 419 264, 263	89	26, 381	61 719	2, 419 237, 882			
Doctor and Charlestown		201, 200	H	20,001		201,002	li		
Plymouth	51	2, 963	2	464	49	2, 499		••••••	
Barnstable	340 16	30, 156 1, 306	1 4	90 1,080	339 12	30, 066 226		••••••	
Edgartown	24	1,540	 		24	1,540	,	••••••	
New BedfordFall River	265 124	44, 838 34, 663	15 20	2, 963 16, 052	250 95	41, 875 15, 536	9	3, 07	
Z dat 1617VI		01,000	20	10,002				3, 0	
ode Island	300	41, 106	59	24, 518	241	16, 588		-	
Providence	125	34, 386	30	22, 274	95	12, 112			
Newport	144 31	5, 271 1, 449	21 8	1, 968 276	123 23	3, 303 1, 173		• • • • • • • • • • • • • • • • • • • •	
Dristol and warren	31	1, 250			23	1, 173		•••••	
nnecticut	822	82,742	108	30, 047	641	44, 299	73	8, 30	
Stonington	124	7, 803	9	1, 163	115	6, 640]		
New London	200 106	22, 232 14, 066	37	13, 3 34 5, 917	160 77	8, 609 7, 508	8	25	
New Haven	226	28, 178	25 25	6, 462	137	7, 508 14, 556	64	64 7, 16	
Fairfield	166	10, 463	12	3, 171	152	6, 986	2	30	
w York	4,009	934, 950	850	292, 629	2, 754	560, 556	405	81, 70	
New YorkSag Harbor	3, 721 288	918, 057 16, 893	824 26	290, 674 1, 955	2, 495 259	548, 187 12, 369	402	79, 19 2, 56	
T		•					i		
w Jersey	1, 087	87, 556	113	17, 743	906	58, 123	68	11.66	
Newark Perth Amboy	64	5,316	27	2, 808	37	2, 508		· • • • • • • • • • • • • • • • • • • •	
Little Egg Harbor	435 72	36, 722 5, 583	62	10, 212 1 67	312 71	15, 849 5, 4 16	61		
Great Egg Harbor	127	14, 859	2	36	125	14, 823		• • • • • • • • • • • • • • •	
Great Egg Harbor Bridgeton Burlington	314	16, 153	3 !	149	311	16,004		· · · · · · · · · · · · · · · · · · ·	
Burnington	. 75	8, 923	18	4, 371	50	3, 523	7	1,00	
nnsylvania: Philadelphia	941	209, 112	269	72, 201	643	132, 089	29	4, 83	
laware : Delaware	182	16, 287	21	4, 042	159	12, 128	2	••	
	102	10, 201	1 21	4,042	138	12, 126	1	11	
ryland	1, 788	121, 021	139	38, 742	1, 645	81, 856	4	42	
Baltimore	1,013	102. 139	138	38, 723	871	62, 993	! 4	42	
Eastern	118 657	2, 262 16, 620	i i	19	118 656	2, 262 16, 601	,		
strict of Columbia:		·				,			
Georgetown	91 :	8, 771	33	6, 851	58	1, 920		•••••••	
ginia	1, 150	. 33, 555	86	6, 716	1, 061	26, 640	3	196	
Alexandria	99	3, 945	12	754	87	3, 191	h		
Tappahannock	102	2. 669	2	251	100	2,418			
Richmond	142 39	2, 436 4, 657	16	986	141 21	2. 393 3, 515	1 2	43 156	
Petersburg	3 .	47	10	31	i	16			
Norfolk and Portsmouth	407 358	14, 521 5, 280	54	4, 694	353 358	9, 827 5, 280	- 	• • • • • • • • • • • • • • • • • • • •	
rth Carolina	330	12, 66 9	41	3, 511	289	9, 158	!	······	
Albemarle	76	2,773	21	1, 835	55	938			
Pamlico	106	2, 629	6	384	100	2, 245	١	· · · · · · · · · · · · -	
Beaufort	70 78	1, 0 96 6, 171	14	1, 202	70 64	1, 096 4, 879	· · · · · · · · · · · · · · · · · · ·		
th Carolina	223	11. 482	49	6, 414	173	5, 017	1	•	
Georgetown	 -	1 000	, ;						
Charleston Bearleston	19 182 22	1, 002 9, 712 768	14 31 4	613 - 5, 586 - 215	5 151 17	389 4, 126 502	1		
1	,	'	! ·	,	1	,			
egia		21, 118	33	11, 764	86	9, 354	'!		
Savannah	72	14, 3) 0 5, 2£6	18	10, 504	54	3, 806			
	40		12	966	28	4, 320	!		

COMPARATIVE STATISTICS—Continued.

TABLE 28.—FLEETS FOR THE 10 YEARS 1880-1889—Continued.

1881-Continued.

	! T O	TAL.	STEA	MERS.	SAILING	VESSELS.	UNRIGGED CRAFT.		
customs districts.	Number.	Tonnage.	Number.	Tonnage.	Number.	Tonnage.	Number.	Tonnage.	
ew Jersey	1, 126	96, 150	123	18, 751	923	61, 592	80	15, 807	
NewarkPerth Amboy	58 457	4, 485 43, 510	30 68	2, 977 11, 172	28 316	1, 508 17, 560	73	14, 778	
Little Eug Harlor	67	5, 237	i ii	167	66	5, 070			
Great Pag Harlan	135	16, 548	4	65	131	16, 483			
Bridgeton	338 71	17, 694 8, 676	3 17	149 4, 221	335 47	17, 545 3, 426	7	1, 02	
ennsylvania : Philadelphia	936	209, 568	269	70, 337	637	133, 967	30	5, 26	
elaware:							30	0, 20	
Delaware	176	16, 090	23	4, 140	153	11, 950		•••••	
aryland	1, 840	118, 981	142	38, 478	1, 695	80, 254	3	249	
Baltimore	1,046	99, 739	141	38, 459	902	61, 031	3	24	
Annapolis Eastern	120 674	2, 273 16, 969	i	19	120 673	2, 273 16, 950	\	••••••	
istrict of Columbia: Georgetown	. 88	9, 236	: ; 38	7,668	50	1,568	1	•	
irginia	1, 190	33, 343	. 96	7, 806	1, 092	25, 291	2	15	
Alexandria	100	3, 628	12	7, 800	88	2,872			
Tappahannock	130	3, 107	14	356	126	2,751			
Yorktown	135	1,994			135	1, 994			
Richmond	57	5, 955	18	2, 031	37	3, 768	2		
Petersburg	426	264	3 59	74	367	190 8, 617		•••••	
Norfolk and Portsmouth	338	13, 326 5, 069	39	4,679	338	5, 069			
orth Carolina	347	15, 765	49	4 , 034	298	11, 731	! !	· • • • • • • • • • • • • • • • • • • •	
Albemarle	79	3, 093	28	2, 139	51	954			
Pamlico	114	2,700	7	457	107	2, 243			
Beaufort	65	1,059			65	1, 059			
Wilmington	89	8, 913	14	1, 438	75	7, 475	i		
uth Carolina	222	11, 737	44	6, 496	178	5, 241	"		
Georgetown	11	595	8	220	3	375		. 	
Charleston Beaufort	188 23	10, 057 1, 085	32 4	6, 080 196	156 19	3, 977 889			
orgia	131	26, 427	36	16, 029	95	10, 398	ii .]		
Savannab	81	19, 409		14 549	61	4, 867	1		
Brunswick St. Mary	47 3	6, 896 122	20 14 2	14,542 1,372 115	33	5, 524 7			
orida	385	28,981	75	8, 351	310	20, 630	 -		
Fernandina	20	4, 316	3	408	17	3, 908			
St. John	48	3, 966	29	2, 024	19	1,942			
St. Augustine	3	73	1	27	2	46	j		
Key West	143 20	5, 610 1, 598 ·	9 7	2, 222 412	134 13	3, 388 1, 186			
Apalachicola	31	1,412	. 6	1, 157	25	253			
Pensacolu	120	12,006	20	2, 101	100	9, 905			
abanıa : Mobile	130	16, 272	46	6, 585	80	9, 338	4	34	
saissippi: Pearl River	159	6, 527	10	656	130	4, 608	19	1, 2	
uisiana	489	58, 377	47	29, 320	442	29, 057		•••••	
New Orleans	399	55, 085	21	27, 920	378	27, 165	, ,		
Teche	90	3, 292	26	1, 400	64	1,892	1		
	1972	15, 415	38	4, 669	235	10, 159	. 2	-	
	275	. -	!		``		"		
Galveston	195	12, 465	34	4, 013	159	7, 865	2		
		. -	!		159 31 34	7, 865 772 1, 241	2		

COMPARATIVE STATISTICS—Continued.

TABLE 28.—FLEETS FOR THE 10 YEARS 1880-1889—Continued.

1882-Continued.

İ	TO	TAL.	STEA	MERS.	BAILING	VESSEL9.	UNRIGG	ED CRAFT.
CUSTOMS DISTRICTS.	Number.	Tonnage.	Number.	Tonnage.	Number.	Tonnage.	Number.	Tonnage.
orth Carolina.	336	13, 340	56	4, 686	280	8, 654		
Albemarle	74	2, 860	27	1, 999	47	861		
Pamlico	118	3, 033	12	861	106	2, 172		
Beaufort	67	1, 158	ı	1 000	67 60	1, 158		
Wilmington	77	6. 289	17	1, 826	00	4, 463		
outh Carolina	228	10, 696	46	4, 993	182	5, 703		
Georgetown	17	1, 164	10	422	7	742		.
Charleston Beaufort	189 22	8, 572 960	31 5	4, 258 313	158 17	4, 314 647		
eorgia	120	26, 684	 	16, 708	82	9, 976		
Savannah	76	20, 732	22	15, 826	54	4, 906	1	·
Brunswick St. Mary	40	5, 442 510	14 2	767 115	26 2	4, 675 395		
orida	419	30, 161	86	9, 986	333	20, 175	 	: •••••••
Fernandina	19	3, 853	2	322	17	3, 531		
St. John	59 4	5, 259 67	37	2 855	22	2, 404 67		
St. Augustine	153	6, 462	11	2,962	142	3,500		
St Wark	42	3,042	8	423	34	2, 619	·	
Apalachicola	35 107	2, 452 9, 026	9 19	1, 242 2, 182	26 88	1, 210 6, 814		
labama : Mobile	149	16, 611	51	7, 209	91	9, 228	4	17
ississippi: Pearl River	158	6, 110	18	1, 102	121	3, 745	19	1, 26
ouisiana	503	52, 895	51	28, 6 31	452	24, 264		
New Orleans	411 92	49, 941 2, 954	24 27	27, 442 1, 189	387 65	22, 499 1, 765		
exas	277	11, 464	37	3, 709	236	6, 894	4	86
Galveston	191	8, 102	33	3, 149	154	4, 092	4	86
Saluria	29	732		. .	29	732	· · · · · · · · · · · · · · · · · · ·	
Corpus Christi Brazos de Santiago	43 · 14	1, 908 722	3	112 448	42 11	1, 796 274		
		186	33					
	17, 856	2, 770, 017	2,584	730, 308	14,500	1, 889, 438	772	150, 271
Total							1	
	2, 608	533, 791	101	18, 954	2. 504	513, 864	3	973
aine	2, 608	533, 791	101		' '		3	
aine		533, 791	101	3, 216	179	17, 075		973
aine Passamaquoddy	2, 608 192 181 250	533, 791 20, 291 16, 737 14, 609	101 13 5 6	3, 216 90 110	179 176 244	17, 075 16, 647 14, 499		973
Passamaquoddy	2, 608 192 181 250 270	533, 791 20, 291 16, 737 14, 609 16, 195	101 13 5 6	3, 216 90 110 25	179 176 244 269	17, 075 16, 647 14, 499 16, 170		973
Passamaquoddy	2, 608 192 181 250 270 168	20, 291 16, 737 14, 609 16, 195 25, 659	101 13 5 6 1	3, 216 90 110 25 717	170 176 244 269 159	17, 075 16, 647 14, 499 16, 170 24, 942		973
Passamaquoddy	2, 608 192 181 250 270	20, 291 16, 737 14, 609 16, 195 25, 659	101 13 5 6 1	3, 216 90 110 25 717	170 176 244 269 159	17, 075 16, 647 14, 499 16, 170 24, 942 48, 308		973
Passamaquoddy Machias. Frenchman Bay Castine Bangor. Belfast Waldoboro Wiscasset.	2, 608 192 181 250 270 168 245 408 150	533, 791 20, 291 16, 737 14, 609 16, 195 25, 659 48, 465 93, 709 7, 684	101 13 5 6 1 9	3, 216 90 110 25 717 157 793 84	179 176 244 269 159 241 403 148	17, 075 16, 647 14, 499 16, 170 24, 942 48, 308 92, 661 7, 600	1	973
Passamaquoddy Machias Frenchman Bay Castine Bangor Belfast Waldoboro	2, 608 192 181 250 270 168 245 408	533, 791 20, 291 16, 737 14, 609 16, 195 25, 659 48, 465 93, 709	101 13 5 6 1 9	3, 216 90 110 25 717 157 793	170 176 244 269 159 241 403	17, 075 16, 647 14, 499 16, 170 24, 942 48, 308 92, 661		973
Passamaquoddy Machias Frenchman Bay Castine Baugor Belfast Waldoboro Wiscasset Bath Portland and Falmouth	2, 608 192 181 250 270 168 245 408 150 296	20, 291 16, 737 14, 609 16, 195 25, 659 48, 465 93, 709 7, 684 165, 795	101 13 5 6 1 1 9	3, 216 90 110 25 717 157 793 84 4, 634	170 176 244 269 159 241 403 148 266	17, 075 16, 647 14, 499 16, 170 24, 942 48, 308 92, 661 7, 600 160, 443	1 2	255
Passamaquoddy Machias Frenchman Bay Castine Bangor Belfast Waldoboro Wiscasset Bath Portland and Falmouth	2, 608 192 181 250 270 168 245 408 150 296 381	533, 791 20, 291 16, 737 14, 609 16, 195 25, 659 48, 465 93, 709 7, 684 165, 795 117, 120 2, 320	101 13 5 6 1 1 9	3, 216 90 110 25 717 157 793 84 4, 634	170 176 244 269 159 241 403 148 266 356	17, 075 16, 647 14, 499 16, 170 24, 942 48, 308 92, 661 7, 600 160, 443 108, 295 2, 017	1 2	255
Passamaquoddy Machias Frenchman Bay Castine Bangor Belfast Waldoboro Wiscasset Bath Portland and Falmouth	2, 608 192 181 250 270 168 245 408 150 296 381 20 36	20, 291 16, 737 14, 609 16, 195 25, 659 48, 465 93, 709 7, 684 165, 795	101 13 5 6 1 1 9	3, 216 90 110 25 717 157 793 84 4, 634 8, 825 303	170 176 244 269 159 241 403 148 266	17, 075 16, 647 14, 499 16, 170 24, 942 48, 308 92, 661 7, 600 160, 443	1	255
Passamaquoddy Machias Frenchman Bay Castine Bangor Belfast Waldoboro Wiscasset Bath Portland and Falmouth Saco Kennebunk York	2, 608 192 181 250 270 168 245 408 150 296 381 20 36	20, 291 16, 737 14, 609 16, 195 25, 659 48, 465 93, 709 7, 684 165, 795 117, 120 2, 320 4, 844	101 13 5 6 1 1 9	3, 216 90 110 25 717 157 793 84 4, 634 8, 825 303	170 176 244 269 159 241 403 148 266 356 16 36	17, 075 16, 647 14, 490 16, 170 24, 942 48, 308 92, 661 7, 600 160, 443 108, 295 2, 017 4, 864	1	255
aine Passamaquoddy Machias Frenchman Bay Castine Baugor Belfast Waldoboro Wiscasset Bath Portland and Falmouth Saco Kennebunk York w Hampshire: Portsmouth	2, 608 102 181 250 270 168 245 408 150 296 381 20 36 11	20, 291 16, 737 14, 609 16, 195 25, 659 48, 465 93, 709 7, 684 165, 795 117, 120 2, 320 4, 864 343	101 13 5 6 1 9 4 4 2 28 28	3, 216 90 110 25 717 157 793 84 4, 634 8, 823 303	170 176 244 269 159 241 403 148 266 356 16 36	17, 075 16, 647 14, 499 16, 170 24, 942 48, 308 92, 661 7, 600 160, 443 108, 295 2, 017 4, 864 343	1 2	255
aine Passamaquoddy Machias. Frenchman Bay Castine Baugor. Belfast Waldoboro Wiscasset. Bath Portland and Falmouth Saco Kennebunk York York Wampshire: Portsmouth	2, 608 102 181 250 270 168 245 408 150 296 381 20 36 11	20, 291 16, 737 14, 609 16, 195 25, 659 48, 465 93, 709 7, 684 165, 795 117, 120 2, 320 4, 864 343 9, 062	101 13 5 6 1 1 9 4 4 2 28 25 4	3, 216 90 110 25 717 157 793 84 4, 634 8, 825 303	170 176 244 269 159 241 403 148 266 356 16 36 11 58	17, 075 16, 647 14, 499 16, 170 24, 942 48, 308 92, 661 160, 443 108, 295 2, 017 4, 864 343 8, 649	1 2	258
Passamaquoddy Machias Frenchman Bay Castine Bangor Belfast Waldoboro Wiscasset Bath Portland and Falmouth Saco Kennebunk York WHampshire: Portsmouth Bassachusetts Newburyport Gloucester	2, 608 102 181 250 270 168 245 408 150 296 381 11 66 2, 232 - 70 503	533, 791 20, 291 16, 737 14, 609 16, 195 25, 659 48, 465 93, 709 7, 684 165, 795 117, 120 2, 320 4, 864 343 9, 062 442, 009 18, 423 31, 342	101 13 5 6 1 1 9 4 4 2 28 4 25 4 177 - 15 6	3, 216 90 110 25 717 157 793 84 4, 634 8, 825 303 413 64, 309	179 176 244 269 159 241 403 148 266 356 16 36 11 58	17, 075 16, 647 14, 499 16, 170 24, 942 48, 308 92, 661 160, 443 108, 295 2, 017 4, 864 343 8, 649 373, 705	1 2 2	255
Passamaquoddy Machias Frenchman Bay Castine Bangor Belfast Waldoboro Wiscasset Bath Portland and Falmouth Saco Kennebunk York York Portsmouth Sasachusetts Newburyport Gloucester Salem and Beverly	2, 608 102 181 250 270 168 245 408 150 296 381 20 36 11 66 2, 232 70 503 48	533, 791 20, 291 16, 737 14, 609 16, 195 25, 659 48, 465 93, 709 7, 684 165, 795 117, 120 2, 320 4, 804 343 9, 062 442, 009 18, 423 31, 342 4, 060	101 13 5 6 1 9 4 4 2 28 25 4	3, 216 90 110 25 717 157 793 84 4, 634 8, 825 303	170 176 244 269 159 241 403 148 266 356 16 36 11 58 2,043	17, 075 16, 647 14, 490 16, 170 24, 942 48, 308 92, 661 7, 600 160, 443 108, 295 2, 017 4, 864 343 8, 649 373, 705	1 2 2 2	255
Passamaquoddy Machias Frenchman Bay Castine Baugor Belfast Waldoboro Wiscasset Bath Portland and Falmouth Saco Kennebunk York Vork Portsmouth sasachusetts Newburyport Gloucester Salem and Beverly	2, 608 102 181 250 270 168 245 408 150 296 381 20 36 11 66 2, 232 70 503 48	533, 791 20, 291 16, 737 14, 609 16, 195 25, 659 48, 465 93, 709 7, 684 165, 795 117, 120 2, 320 4, 864 343 9, 062 442, 009 18, 423 31, 342	101 13 5 6 1 1 9 4 4 2 28 4 25 4 177 - 15 6	3, 216 90 110 25 717 157 793 84 4, 634 8, 825 303 413 64, 309	179 176 244 269 159 241 403 148 266 356 16 36 11 58	17, 075 16, 647 14, 499 16, 170 24, 942 48, 308 92, 661 160, 443 108, 295 2, 017 4, 864 343 8, 649 373, 705	1 2 2	255
Passamaquoddy Machias Frenchman Bay Castine Bangor Belfast Waldoboro Wiscasset Bath Portland and Falmouth Saco Kennebunk York Sw Hampshire: Portsmouth Assachusetts Newburyport Gloucester Salem and Beverly Marblehead Boston and Charlestown	2, 608 192 181 250 270 168 245 408 150 296 381 11 666 2, 232 70 503 48 791	533, 791 20, 291 16, 737 14, 609 16, 195 25, 659 48, 465 93, 709 7, 684 165, 795 117, 120 2, 320 4, 884 343 9, 062 442, 009 18, 423 31, 342 4, 060 2, 540 261, 424	101 13 5 6 1 9 4 4 2 28 25 4 15 6 3 114	3, 216 90 110 25 717 157 793 84 4, 634 8, 825 303 413 64, 309 906 180 43	170 176 244 269 159 241 403 148 266 356 16 36 11 58 2,043	17, 075 16, 647 14, 490 16, 170 24, 942 48, 308 92, 661 7, 600 160, 443 108, 295 2, 017 4, 864 343 8, 649 373, 705 17, 430 31, 162 4, 017 2, 540 224, 730	12 2	255
Passamaquoddy Machias Frenchman Bay Castine Bangor Belfast Waldoboro Wiscasset Bath Portland and Falmouth Saco Kennebunk York SW Hampshire: Portsmouth Assachusetts Newburyport Gloucester Salem and Beverly Marblehead Boston and Charlestown Plymouth	2, 608 102 181 250 270 168 245 408 150 296 381 20 36 11 666 2, 232 70 503 48 791	533, 791 20, 291 16, 737 14, 609 16, 195 25, 659 48, 465 93, 709 7, 684 165, 795 117, 120 2, 320 4, 864 343 9, 062 442, 009 18, 423 31, 342 4, 060 2, 540 261, 424 2, 701	101 13 5 6 1 1 9 4 4 2 28 25 4	3, 216 90 110 25 717 157 793 84 4, 634 8, 825 303 413 64, 309	179 176 244 269 159 241 403 148 266 356 16 36 11 58 2,043 497 45 48 677	17, 075 16, 647 14, 499 16, 170 24, 942 48, 308 92, 661, 7600 160, 443 108, 295 2, 017 4, 864 373, 705 17, 430 31, 162 4, 017 2, 540 224, 730 2, 357	12 2	258
Passamaquoddy Machias. Frenchman Bay Castine Baugor. Belfast Waldoboro Wiscasset Bath Portland and Falmouth Saco Kennebunk York sw Hampshire: Portsmouth Assachusetts Newburyport Gloucester Salem and Beverly Marlbehead Boston and Charlestown Plymouth Barnstable Nantucket	2, 608 102 181 250 270 168 245 408 150 296 381 11 20 503 48 791 45 332 17	533, 791 20, 291 16, 737 14, 609 16, 195 25, 659 48, 465 93, 709 7, 684 165, 795 117, 120 2, 320 4, 884 343 9, 062 442, 009 18, 423 31, 342 4, 060 2, 540 261, 424 2, 701 32, 736 1, 376	101 13 5 6 1 9 4 4 2 28 25 4 15 6 3 114	3, 216 90 110 25 717 157 793 84 4, 634 8, 825 303 413 64, 309 906 180 43	179 176 244 269 159 241 403 148 266 356 16 36 11 58 2,043 497 45 48 677	17, 075 16, 647 14, 490 16, 170 24, 942 48, 308 92, 661 7, 600 160, 443 108, 295 2, 017 4, 864 343 8, 649 373, 705 17, 430 31, 162 4, 017 2, 540 224, 730 2, 357 32, 729 311	1 2 2	255
Passamaquoddy Machias Frenchman Bay Castine Bangor Belfast Waldoboro Wiscasset Bath Portland and Falmouth Saco Kennebunk York Vork Waldoboro Wincasset Bath Portsmouth Saco Kennebunk York Portsmouth Bassachusetts Newburyport Gloucester Salem and Beverly Marblehead Boston and Charlestown Plymouth Burnstable	2, 608 102 181 250 270 168 245 408 150 296 381 20 36 11 66 2, 232 70 503 48 48 791 45 3:12 177 24	533, 791 20, 291 16, 737 14, 609 16, 195 25, 659 48, 465 93, 709 7, 684 165, 795 117, 120 2, 320 4, 894 343 9, 062 442, 009 18, 423 31, 342 4, 060 2, 540 261, 424 2, 701 32, 736	101 13 5 6 1 9 4 4 2 28 25 4 	3, 216 90 110 25 717 157 793 84 4, 634 8, 823 303 413 64, 309 906 180 43 36, 694	170 176 244 269 159 241 403 148 266 356 16 36 11 58 2,043 497 45 48 677 44 44 331	17, 075 16, 647 14, 490 16, 170 24, 942 48, 308 92, 661 7, 600 160, 443 108, 295 2, 017 4, 864 343 8, 649 373, 705 17, 430 31, 182 4, 017 2, 540 224, 730 2, 357 32, 729	1 2 2	255

TABLE 28.—FLEETS FOR THE 10 YEARS 1880-1889—Continued.

1882

					T			
CUSTOMS DISTRICTS.		TAL.	STR	AMERS.	BAILING	VESSELS.	UNRIGGE	D CRAFT.
	Number.	Tonnage.	Number.	Tonnage.	Number.	Tonnage.	Number.	Tonnage.
Total	17, 897	2, 714, 281	2, 532	692, 959	14, 593	1, 876, 736	772	144,5
aine	2, 590	525, 449	93	16, 657	2, 494	507, 819	3 ;	
Passamaquoidy	190	21,778	14	3, 975	176	17, 803		
Machias Frenchman Bay	166 244	14, 400 14, 532	4	75 75	162 240	14, 325 14, 457		
Custine Bangor	292 168	16, 778 26, 499	8	404	292 160	16, 778 26, 095		
Belfast		·	il	1		•		•••••
Waldoboro	237 409	49, 359 91, 137	3 5	146 815	234 403	49, 213 90, 067	i	• • • • • • • • • • • • • • • • • • • •
WiscassetBath	149 289	8, 040 155, 477	27	84 3, 138	147 260	7, 956 151, 621	2	••••••••
Portland and Falmouth			1.	İ		· ·]	
Saco	374 21	116, 600 1, 884	23	7, 685 260	351 18	108, 915 1, 6 24		
Kennebunk York	39 12	8, 614 351			39	8, 614 351		
ew Hampshire:		551	ļ.			•••		• • • • • • • • • • • • • • • • • • • •
Portamouth	65	9, 045	; };	254	58	8, 791		· · · · · · · · · · · · · · · · · · ·
assachusetts	2, 252	429, 092	160	50, 921	2,081	374, 508	, 11	3,
Newburyport	61	11, 637	15	741	44	10, 809	2	-
Gloucester Salem and Beverly	478 64	27, 850 5,291	5 3	165 44	473 61	27, 685 5, 247	1	
Marblehead Boston and Charlestown	57 835	1,963	1	16 29, 842	36 733	1, 947 237, 122	,	
		266, 964	102		1		;	
Plymouth	40 322	2, 071 30, 171	1	159	39 322	1, 9 12 3 0, 171		• • • • • • • • • • • • • • • • • • •
Nuntucket Edgartown	16 23	1, 312	3	1, 069	13 23	243 1, 439		
New Bedford	232	1, 439 42, 187	12	2,727	220	39, 400		
Fall River	124	38, 207	18	16, 158	97	18, 563	9	3,
ode Island	309	44, 240	54	24, 340	255	19, 200	1	
Providence Newport	144 129	37, 544 4, 637	29 16	22, 440 1, 613	115	15, 104 3, 044		
Bristol and Warren	36	2, 039	9	297	27	1, 752		
onnecticut	866	96, 410	117	32, 066	595	41, 130	154	23,
Stonington		. 8, 223	11	1, 329	99	6, 894		
New London	185 104	25, 914 14, 501	36 19	15, 912 4, 325	139 66	7, 969 6, 323	10 19	2, 3,
New Haven Fairfield	291 176	38, 550 9, 222	! 33 18	7, 048 3, 4 52	134 157	14, 322 5, 622	124 1	17,
w York	4, 101	945, 231	- ' - 987	327, 974	2,679	530, 150	435	87,
New York	3, 830	928, 658	954	325, 427	2,444	518, 693	432	84,
Sag Harbor	271	16, 573	33	2, 547	235	11, 457	3	2,
w Jersey	1, 194	101, 466	135	20, 237	953	60, 025	106	21
Newark	6 2 517	4, 981 48, 648	35 73	3, 450 12, 048	27 345	1, 531 16, 425	99	20
Little Egg Harbor Great Egg Harbor	66	4, 867	2	215	64	4, 652	<u> </u>	
Bridgeton Burlington	139 340	16, 652 17, 7 5 9	3 3	48 149	136 337	16, 604 17, 610		· · · · · · · · · · · · · · · · · · ·
	70	8, 55 9	19	4, 327	4	3, 203	7	1
nnsylvania: Philadelphia	895	205, 663	279	75, 26 8	587	125, 179	29	5.
llaware : Deluware	165	16, 6 69	19	3, 769	144	12, 304	2	
aryland	1, 922	125, 176	153	47, 626	1,766	77, 301	3	
Baltimore	1, 090	104, 475	150	47, 318	937	56, 908	3	
AnnapolisEastern	120 712	2, 273 18, 428	3	308	120 709	2, 273 18, 120		
strict of Columbia: Georgetown	87	10, 568	38	8, 278	49	2, 290		
rginia	1, 261	37, 311	107	8, 545	1, 152	28, 610	. 2	
			ii		ļ		<u>_</u>	
AlexandriaTappahannock	87 140	3, 654 8, 230	· 12 5	609 279	75 135	2, 955 2, 9 51	, ¹	
YorktownRichmond	131 59	2, 103	20	2, 062	131 37	2, 103 4, 250	2	
Potersburg. Norfolk and Portsmouth.	4	6, 468 278	1	16	3	262	1	
Norfolk and Portsmouth	478 362	16, 041 5, 537	67 2	5, 470 i 19	411 360	10, 571 5, 518		

COMPARATIVE STATISTICS—Continued.

TABLE 28.—FLEETS FOR THE 10 YEARS 1880-1889—Continued.

1883-Continued.

	TO	TAL.	STEA	MERS.	SAILING	VESSELS.	ED CRAFT.	
customs districts.	Number.	Tonnage.	Number.	Tonnage.	Number.	Tonnage.	Number.	Tonnage.
Louisiana	434	52, 403	54	32, 554	380	19, 849		
New Orleans	350 84	49, 457 2, 946	26 28	30, 984 1, 570	324 56	18, 473 1, 376		
Texas	274	10, 672	36	3, 308	235	6, 629	3	73
GalvestonSaluriaCorpus ChristiBrazos de Santiago	197 27 38 12	8, 313 096 972 691	31	2, 702 158 448	163 27 36 9	4, 876 696 814 243	3	73

1884

Total	17, 922	2, 819, 586	2, 693	755, 754	14, 489	1, 918, 006	740	145, 82
aine	2, 578	543, 432	114	22, 965	2, 462	519, 749	2	71
Passamaquoddy	187	19, 973	16	4, 416	171	15, 557		-
Machias	194	20, 952	7	160	187	20, 792		
Franchman Ray	236	14, 704	5	125	231	14, 579		.
Castine	252	14, 138	1	25	251	14, 113	<u> </u>	• • • • • • • • • • • •
Bangor	182	27, 525	12	806	170	26,719	¦	• • • • • • • • • • • • • • • • • • • •
Belfast	252	51, 677	4	157	248	51, 520		· · · • • · · · • • • · · • • • · · · ·
Waldoboro	372	84, 671	4	1, 138	368	83, 533	'. ,	
Wiscasset	150	7. 326			150	7, 326	, 	 .
Bath	299	173, 749	32	4, 400	265	168, 631	2	7
Portland and Falmouth	387	119, 900	30	11, 507	357	108, 393	li.	
Saco	17	2, 504	3	231	14	2, 273		
Kennebunk	38 '	5, 917			38	5, 917		
York	12	396			12	396	••••	•••••
w Hampshire:		']		1				
Portsmouth	70	10, 574	7	378	63	10, 196	·····	• • • • • • • • • • • • • • • • • • •
ssachusetts	2, 156	437, 364	188	60,626	1, 957	373, 025	11	3, 7
Newburyport	72	18, 910	16	916	54	17, 907	2	
Gloucester	496	31, 762	i	60	495	31, 693	:	
Salem and Beverly	41	1,772	3	31	38	1, 741	······	• • • • • • • • • • • • • • • • • • • •
Marblehead	42	2, 777	•	, or	42	2,777		• • • • • • • • • • •
Boston and Charlestown	789	261. 838	132	34, 382	657	227, 456		
Plymouth	45	2, 408		j	45	2, 408		
Barnstable	312	30, 936			312	8 0, 936		• • • • • • • • • • • • • • • • • • • •
Nantucket	19	1,537	2	1, 062	17	475		· · · · • • • • • • • • • • • • • • • •
Edgartown	26	1,572		2,002	26	1,572	· · · · · · · · · · · · · · · · · · ·	
New Bedford	208	36, 979	12	2, 320	196	34, 659		, - · · · · · · · · · · · · · · · · · ·
Fall River	106	46, 873	22	21.846	75	21, 401	9	3, 6
ode Island	291	41, 499	59	21, 687	232	19, 812		
Peruilana							·	
Providence	142	34, 304	37	19, 889	105	14, 415	, <i></i> '	.
Bristol and Warren Newport	34	1, 891	.7.	218	27	1,673	¦	-,
Newport	115	5, 304	15	1, 580	100	3, 724		· • • • • • • • • • • • • • • • • • • •
necticut	861	109, 198	152	35, 617	538	46, 720	171	26, 86
				i			-	
Stonington	103 ¹ 192	6, 465 32, 681	12 ¹	1, 376 16, 516	91 131	5, 089	' <u></u>	3, 893
Middletown	97	14, 332	19	4, 269	59	12, 272 6, 274	15 : 19 '	3,780
New Haven	297	45, 195	47	8, 499	115		135	18, 953
Fairfield	172	10, 525	28	4, 957	142	17, 743 5, 342	2	226
w York	4, 236	978, 371	1,072	363, 751	2, 709	523, 123	455	91, 49
			i		· i		-	
New York Sag Harbor	3, 986 250	964, 556 13, 815	1, 044 28	361. 439 2, 312	2, 488 221	512, 401 10, 722	454 1	90, 73
w Jersey	1, 103	91, 595	110	16, 423	945	61, 125	48	14.
Newark	79	7, 369	35	3, 510		2 850		
Perth Amboy	385	36, 706	48	8, 178	289	3, 859 14, 48 1	48	1 4 .
Little Egg Herhor	60	4, 396	1	48	59	4, 348	10	
Great Egg Harbor	135	17, 619	2	170	133	17, 449		
Great Egg Harbor Bridgeton. Burlington	378	17, 979	5 '	261	• 373	17, 718		
Burnington	66	7, 526	19 j	4, 256	47 l	3, 270	· · · · · · · · · · · · · · · · · · ·	
nsylvania:		218, 947	289	74, 116	574	138, 731	31	6.
Philadelphia	894	210, 841	200	14, 110		100, 102	02 1	
Philadelphia	894	210, 891	200	14, 110	•••	100, 102	-	

TABLE 28.—FLEETS FOR THE 10 YEARS 1880-1889—Continued.

1883-Continued.

	TO	TAL.	STEA	MERS.	SAILING	VESSELS.	UNRIGGED CRAFT.	
CUSTOMS DISTRICTS.	Number.	Tonnage.	Number.	Tonnage.	Number.	Tonnage.	Number.	Tonnage.
Rhode Island	282	42, 012	49	23, 707	233	18, 305		1
Providence	139	36, 226	30	21, 800	109	14, 426		
Newport Bristol and Warren	110 33	4, 562 1, 224	13	1,722 185	97 27	2, 840 1, 039		
Connecticut	865	102, 975	135	34, 203	551	40, 776	179	27, 996
Stonington	99	6, 455	. 12	1, 326	87	5, 129		
New London	187	28. 726	11 41	16, 425	129	8, 289	17	4, 012
Middletown New Haven Fairfield	99 312 1 6 8	14, 586 43, 535 9, 673	19 42 21	1,445 7,731 4,276	130 145	6, 043 16, 144 5, 171	20 140 2	4, 098 19, 660 220
New York	4, 120	943, 587	1, 006	338, 604	2, 671	516, 599	413	88, 384
New York Sag Harbor	3, 870 250	928, 333 15, 254	978 28	336, 327 2, 277	2, 451 220	505, 560 11, 039	441	86, 446 1, 938
New Jersey	1, 193	90, 519	. 127	17, 982	977	6), 156	89	21, 381
Newark	70	6, 002	32	3, 358	38	2.614		'
Perth Amboy	505	47, 991	66	9.840	357	17, 799	82	20, 352
Little Egg Harbor Great Egg Harbor	65 127	4, 652 14, 530	2 3	55 182	63 124	4, 597 14, 348	1	1
Bridgeton	354	17, 714	. 4	181	350	17, 533		
Burlington	72	8, 630	20	4, 366	45	3, 235	7	1, 021
Philadelphia	900	221, 508	289	79, 022	582	137, 270	29	5, 216
Delaware: Delaware	177	17, 678	21	3,934	156	13, 744	·	
Maryland	1,981	129, 048	154	47, 371	1, 823	80, 500	4	1,777
Baltimore	1, 106	107, 113	151	47, 024	951	58, 912	4	1, 177
Annapolis	1 22 753	2, 548 19, 387	1 2	45 302	121 751	2, 503 19, 085		
District of Columbia: Georgetown	84	- 10,746	35	8, 406	49	2,340		
Virginia	1, 230	38, 285	104	8, 398	1, 126	! 29, 887		
Alexandria	84	3, 525	12	481	72	3, 044	1	
Tappahannock	120	3, 137	3	170	117	2,967	\;	
Yorktown Richmond	202 64	3, 256 7, 385	19	57 2, 014	201 45	3, 199 5, 371	<u> </u>	
Petersburg	5	. 175	4	162	1	13		
Norfolk and Portsmouth	410 345	15, 447 5, 360	63 2	5, 495 19	347 343	9, 952 5, 341		
North Carolina	340	14, 875	55	4,788	285	10, 087		ļ <u>`</u>
Albemarle	64.	2, 746	25	2, 129	39	617		
Pamlico	125	3, 454	14	932	111	2, 522		
Beaufort	73 78	1, 247 7, 428	15	1, 694	72 63	1, 214 5, 734		
South Carolina	219	13, 457	45	6, 259	174	7, 198		
Georgetown. Charleston Beaufort	18 175 26	2, 217 9, 387 1, 853	9 31 5	706 5, 240 313	144 21	1, 511 4, 147 1, 540		
Georgia	120	34, 560	42	21, 525	78	13, 035		
Savannah	79	25, 756	31	20, 685	48	5, 071		
Brunswick St. Mary	37 4	8, 648 156	8 3	691 149	29 1	7, 957 7		
Florida	442	34, 055	87	9, 878	355	24, 177		· · · · · · · · · · · · · · · · · · ·
Fernandina	16	3, 167	2	322	14	2, 845		;
St. John St. Augustine	59 4	5, 442 257	39	2,551	20	2, 891 257		
Key West	154	6, 864	12	3, 495	142	3, 369		
St. Mark	45 34	3, 179	5 10	203	40 24	2, 976 1, 434		
ApalachicolaPensacola	130	3, 037 12, 109	19	1, 603 1, 704	111	10, 405		
Alabama: Mobile	154	13, 676	45	5, 781	99	7, 481	10	414
Mississippi:		i	II	ĺ	11	i	H .	

COMPARATIVE STATISTICS—Continued.

TABLE 28.—FLEETS FOR THE 10 YEARS 1880-1889—Continued.

1885-Continued.

	то	TAL.	STE.	MERS.	ľ	VESSELS.	UNRIGG	ED CRAFT.
CUSTOMS DISTRICTS.	Number.	Tonnage.	Number.	Tonnage.	Number.		Number.	Tonnage.
lew Hampshire: Portamouth	66	10, 891	7	389	59	10, 502		
•			1	. 309) 	10, 302	•	
Lassachusetts	2, 068	442, 837	156	68, 941	1,902	370, 925	10	2, 97
Newburyport Gloucester	63	17, 162	15	906	46	16, 169	2	
Salem and Beverly	510 38	33, 943 1, 952	. 6	209 39	504 36	33, 734 1, 913		, • • • • • • • • • • • • • •
Marblehead	44	3, 036	2	73	42	2, 963		
Boston and Charlestown	723	267, 805	96	42, 170	627	225, 635		
Plymouth	35	2, 038	1	344	34	1,694		
Barnstable	305	29, 609			305	29, 609		
Nantucket	19	1, 472	'i 2	1,062	17	410		
EdgartownNew Bedford	23 209	1, 235 3 6 , 446	12	2, 336	23 197	1, 235	·	¦
Fall River	99	48, 139	20	21, 802	71	34, 110 23, 453	: 8	2,8
hode Island	270	39, 78G	44	21, 209	226	18, 577		
Develdence			I		I	1	ı.———	ļ
Providence	127 31	32, 881 1, 511	30	19, 492 125	97 28	13, 389 1, 386		
Newport	112	5, 394	บ้	1, 592	101	3, 802		
					il		1	
onnecticut		108, 420	148	36, 565	522	45, 960	163	25, 8
Stonington	109	6, 669	11	2, 256	98	4, 413		.
Middletown	176 94	31, 881 14, 115	38	16, 221 4, 193	123 56	11, 821 5, 938	15	3,8
New Haven	284	44, 491	48	8, 565	110	18, 030	20 126	3,9 17,8
Fairfield	170	11, 264	33	5, 330	135	5, 708	2	1,,2
ew York	4, 171	986, 145	1,054	366, 487	2, 651	525, 470	466	94, 1
New YorkSag Harbor	3, 930 241	971, 485 14, 660	1,028 26	364, 170 2, 317	2, 437 214	513, 908 11, 562	465 1	93, 40 78
ow Jersey	1, 077	89, 133	105	. 13,688	924	61, 491	48	13, 95
Newark	66	5, 349	35	3, 303	31	9.048	-	
Perth Amboy	374	36, 709	44	7, 767	282	2, 046 14, 988	48	13, 95
Little Egg Harbor	62	4, 477	3	183	59	4, 294	10	10, 50
Great Egg Harbor	133 399	17, 904 21, 087	4 7	446	129	17, 458		
Burlington	43	3, 607	12	828 1, 161	392 31	20, 259 2, 446		
		,,,,,,		1 .,		2,110		······
ennsylvania: Philadelphia	842	216, 435	277	77, 414	533	132, 328	32	6,00
elaware: Delaware	186	19, 946	200	F 000	100	14.047	1	
		15, 540	26	5, 999	160	14, 847		
[aryland	2, 280	146, 839	173	53, 370	2. 098	91, 261	0	2, 20
Baltimore	1, 262	123, 493	170	53, 195	1, 083	68, 090	Q	2, 20
Annapolis Eastern	160 858	3, 174 20, 172	1 1	! 106 . 69	159	3, 068		
		20, 172	2	09	856	20, 103		
istrict of Columbia: Georgetown	72	10, 187	30	8, 580	41	1, 099	1 1	S
irginia	1, 236	45, 788	101	8, 346	1, 135	27 440		
			-		1, 155	37, 442		
Alexandria	84	5, 582	14	622	70	4, 960		1
Richmond	148 63	4, 016 10, 017	. 3	170	145	3, 846		
Petersburg	6	229	15	1, 982 210	‼ 48 . 2	8, 035 19		!
Yorktown Norfolk and Portsmouth	214	3, 730	3	148	211	3, 582	<u> </u>	
Cherrystone	408 313	17, 017 5, 197	58	4, 997 217	350 300	12, 020 4, 980	·	
orth Carolina	350	14, 906	62	4, 739	288	10, 167	!	; ;
Albemarle	70	2, 794	26	2, 194		·		ı · - -
Pamlico	118	2, 704 2, 885	16	912	102	600 1, 973	`··········	
Beaufort	87	1, 631	1 4	197	83	1.434		· • • • • • • • • • • • • • • • • • • •
Wilmington	75	7, 596	16	1, 436	59	6, 160		
outh Carolina	227	12, 807	52	6, 762	175	6, 045	į	
Georgetown	23	2, 679	12	853	 : 11	1, 826	1	·
Charleston	183	9, 419	34	5, 500	149	1, 826 3, 919		
Beaufort	21	709	. 6	409	15	300	4	,

TABLE 28.—FLEETS FOR THE 10 YEARS 1880-1889—Continued.

1885-Continued.

	TO	TAL.	STEA	MERS.	SAILING	VESSELS.	UNRIGG	ED CRAPT.
CUSTOMS DISTRICTS.	Number.	Tounage.	Number.	Tonnage.	Number.	Tonnage.	Number.	Tonnage.
Georgia	133	35, 831	51	24, 024	82	11, 807		
Savannah	88 42 3	27, 161 8, 001 579	36 14 1	22, 652 1, 338 34	52 28 2	4, 509 6, 753 545		
Florida	489	39, 488	110	11, 568	379	27, 920		
Fernandina St. John St. Augustine Key West St. Mark Apalachicola Pensacola	17 74 8 154 53 37 146	3, 501 6, 358 332 7, 402 1, 582 1, 677 18, 546	3 50 3 15 9 12 18	389 3, 574 276 3, 658 919 1, 309 1, 443	14 24 5 139 44 25 128	3, 202 2, 784 56 3, 744 663 368 17, 103		
Alabama: Mobile	142	10, 958	49	5, 69 8	82	4, 800	11	46
Missispi: Pearl River	129	5, 396	9	861	120	4, 535		
Louisiana	471	49, 804	62	34, 165	409	15, 639		
New Orleans	371 100	46, 604 3, 200	30 32	32, 741 1, 424	, 341 68	13, 863 1, 776		
Texas	252	8, 62 0	36	3, 297	212	4, 703	4	59
Galveston Saluria Corpus Christi Brazos de Santiago	180 26 33 13	6, 804 346 998 472	31 2 3	2, 865 158 274	147 26 29 10	3, 572 346 617 198	2	36 22

1886

Total	17, 362	2, 659, 448	2, 662	763, 302	13, 937	1, 742, 766	763	153, 380
(aine	2, 391	459, 139	116	22, 043	2, 271	434, 824	4	2, 272
Passamaquoddy	173	18, 252	11	3,510	162	14, 742		
Machias	185	17, 886	5 ¦	123	180	17, 763		
Frenchman Bay	241	16,003	7	494 !	234	15, 509	1	.
Gastine	234	13. 079	3	55	231	13, 024		
Bangor	161	21, 435	12	842	149	20, 593	j	
Belfast	232	41, 355	2	92	230	41, 263		
Waldoboro	339	70, 372	4 (793	335	69, 579	1	
Wiscasset	141	7,617	2	106	139	7, 511	,	
Bath	259	141, 913	27	3,502	228	136, 139	4	2, 27 2
Portland and Falmouth	365	105, 306	39	12, 280	326	93, 026	.l i	
Seco	19	2, 191	3	231	16	1, 960		
Kennebunk	32	3, 400	ii	15	31	3,385		
York	10	330		13	10	330		
ew Hampshire:	!	ì	1	Ĭ			4	
Portsmouth	65	10, 422	7	389	58	10, 033		· · · · · · · · · · · · · · · · · · ·
Lassachusetts	2. 011	435, 96 9	166	70. 424	1, 834	861, 794	11	8, 751
Newburyport	64	16, 565	14	893	48	15. 585	2	87
Gloucester	494	23 338	8	273	486	32, 955		
Salem and Beverly	39 :	33, 228 2, 319	5	170	34	2, 149	110000000000000000000000000000000000000	
Marblehead	40	2, 866	il	11	39	2, 145		
Boston and Charlestown	699	262, 487	101	43, 465	5 9 8	2, 835 219, 022		
Plymouth	31	1, 700	1	344	30	1. 356		
Barnstable	307	28, 908	i	46	306	28, 862	'	
Nantucket	16	1,041	1 :	578	15	20, 802		
Edgartown	20	981	1 .	916				
Martown					20	981		
New Bedford	202 99	35, 928 49, 946	14 20	2,836	188 70	33, 092	9	
Fall Biver	99	49, 940	20	21, 808	70	24, 474	! "	3, 664
hode Island	265	39 , 1 11	49	21, 129	214	1 7 , 29 3	. 2	680
Providence	131	32, 289	32	19, 136	97	12, 464	2	. 680
Bristol and Warren	30	1,454	3	125	27	1, 329	1	
Newport	104	5, 368	14	1, 868	90	3, 500		
Connecticut	818	109, 659	153	36, 400	504	47, 418	161	25, 841
Stunia metan	!		-				ļ. ·	
Stonington	105	6, 448	11	2, 256	94	4, 192		
New London	172	32, 46 8	36	16, 106	121	12, 360	15	4, 90
Middletown	95	14, 088	18	8, 887	56	6,068	21	4, 131
New Haven	275	45, 331	48	8,544	103	19, 220	124	17, 558
Fairfield	171	11, 424	40	5, 607	130	5, 509		145

${\bf COMPARATIVE~STATISTICS} \\ {\bf Continued.}$

TABLE 28.—FLEETS FOR THE 10 YEARS 1880-1889—Continued.

1885-Continued.

	TO	TAL.	STEA	MERS.	BAILING	VESSELS.	UNRIGGI	ED CRAFT.
CUSTOMS DISTRICTS.	Number.	Tonnage.	Number.	Tonnage.	Number.	Tonnage.	Number.	Tonnage
w Hampshire:								
Portamouth	66	10, 891	7	389	59	10, 502		•••••
assachusetts	2, 068	442, 837	156	68, 941	1,902	370, 925	10	2,
Newburyport	63	17, 162	15	906	46	16, 169	2	
Gloucester	510	33, 943	- 6	209	504	33, 734	1	 .
Salem and Beverly	38 44	1, 952 3, 036	' 2 2	39 73	36 42	1, 913 2, 963	1	
Boston and Charlestown	723	267, 805	96	42, 170	627	225, 635		
Plymouth	35	2, 038						
Barnstable	305	29, 609	1	344	34 305	1, 694 29, 609		
Nantucket	19	1,472	2	1,062	17	410		
Edgartown New Bedford	23 209	1, 235 3 6 , 446	12	2, 336	23 197	1, 235 34, 110		•••••
Fall River	99	48, 139	20	21, 802	71	23, 453	8	2
odo Iulond	070	100 TOC		0.2 400		*0.505	1	
node Island	270	39, 786	44	21, 209	226	18, 577		
Providence	127 31	32, 881 1, 511	30	19, 492	97	13, 389	·	
Newport	31 112	5, 394	3	125 1, 592	28 101	1, 386 3, 802		
_	1.0	5,000	1	1,000		0,002	1	
nnecticut	833	108, 420	148	36, 565	522	45, 960	163	25
Stonington	109	6, 669	11	2, 256	98	4, 413	! 	
New London	176	31, 881	38	16, 221	123	11, 821	15	3
Middletown New Haven	94 284	14, 115	18	4, 193	56	5, 938	20	8
Fairfield	170	44, 491 11, 264	48 33	8, 565 5, 330	110 135	18, 0% 5, 708	126 2	17
w York								
	4, 171	986, 145	1,054	366, 487	2, 651	525, 470	466	94
New York	3, 930 241	971, 485 14, 660	1, 028 26	364, 170 2, 317	2, 437 214	513, 908 11, 562	465 1	93
w Jersey	1, 077	89, 133	105	. 13,688	.924	61, 491	48	13
Newark	66	5, 349	35	3, 303	31	2, 046	-	
Parth Amboy		36, 709	44	7, 767	282	14,988	48	13
Little Egg Harbor Great Egg Harbor	62 133	4, 477 17, 904	3 4	183 446	59 129	4. 294 17, 458		
Bridgeton Burlington	399	21, 087	1 7	828	392	20, 259		
Burnington	43	3, 607	12	1, 161	31	2, 446		
nnsylvania: Philadelphia	842	216, 435	277	77 414	533	120 200		_
laware:	012	210, 400	211	77, 414	333	132, 328	32	6
Delaware	186	19, 946	26	5, 099	160	14, 847		
aryland	2, 280	146, 839	173	53, 870	2, 098	91, 261	9	2
Baltimore	1, 262	123, 493	170			60.000	·	
Annapolis	160	3, 174	170	53, 195 106	1, 083 159	68, 090 3, 068	9	2
Eastern	858	20, 172	2	69	856	20, 103		
strict of Columbia:								
Georgetown	72	10, 187	30	8, 580	41	1, 099	1	
rginia	1, 236	45, 788	101	8, 346	1, 135	37, 442		••••
Alexandria	84	5, 582	14	622	70	4, 960		
Tappahannock	148	4,016	3	170	145	3, 846		
Richmond	63 6	10, 017 229	15 4	1,982 210	48	8, 035	 	
Yorktown	214	3, 730	1 3	148	211	19 3, 582		
Norfolk and Portsmouth	408 313	17, 017 5, 197	58	4, 997 217	350 300	12, 020		
		0,10		211	300	4, 980		
rth Carolina	850	14, 906	62	4, 739	288	10, 167		••••••
Albemarle	70	2, 794	26	2, 194	44	600		
PamlicoBeaufort	118 87	2, 885	16	912	102	1, 973		
Wilmington.	75	1, 631 7, 596	16	197 1. 436	83 59	1, 434 6, 160		
						-,	1	
oth Carolina	227	12, 807	52	6, 762	175	6, 045	ļi	••••••
Georgetown	23	2, 679	12	853	11	1, 826	:	
Charleston								

TABLE 28.—FLEETS FOR THE 10 YEARS 1880-1889—Continued.

1885-Continued.

	TO	TAL.	STEA	MERS.	SAILING	VESSELS.	UNRIGGI	ED CRAFT.
CUSTOMS DISTRICTS.	Number.	Tonnage.	Number.	Tonnage.	Number.	Tonnage.	Number.	Tonnage.
Jeorgia	133	35, 831	51	24, 024	82	11, 807		
Savannalı Brunswick St. Mary	88 42 3	27, 161 8, 091 579	36 14 1	22, 652 1, 338 34	52 28 2	4, 509 6, 753 545		
Florida	489	39, 488	110	11, 568	379	27, 920		
Fernandina St. John St. Augustine Key West St. Mark Apalachicola. Pensacola	17 74 8 154 53 37 146	3, 501 6, 358 332 7, 402 1, 582 1, 077 18, 546	3 50 3 15 9 12 18	389 3, 574 276 3, 658 919 1, 309 1, 443	14 24 5 130 44 25 128	3, 202 2, 784 56 3, 744 663 368 17, 103		
Alabama : Mobile	142	10, 958	49	5, 69 8	82	4, 800	11	460
Misaisaippi: Pearl River	129	5, 396	9	861	120	4, 535		
Louisiana	471	49, 80 <u>4</u>	62	34, 165	409	15, 639		ļ
New Orleans Techo	371 100	46, 604 3, 200	30 32	32, 741 1, 424	, 341 68	13, 8 6 3 1, 776	-	
Texas	252	8, 62 0	36	3, 297	212	4, 703	4	590
Galveston Saluria. Corpus Christi	180 26 33	6, 804 346 998	31	2, 865 158	147 26 29	3, 572 346 617	2	367
Brazos de Santiago	13	472	3	274	10	198		i

1886

Total	17, 362	2, 659, 448	2, 662	763, 302	13, 937	1, 742, 766	763	153, 380
Maine	2, 391	459, 139	116	22,043	2, 271	434, 824	4	2, 272
Passamaquoddy	173	18, 252	11	3,510	162	14, 742		
Machias	185	17, 886	5	123	180	17, 763		
Frenchman Bay	241	16, 003	7	494	234	15, 509		
Gastine	2:34	13, 079	3	55	231	13, 024		• • • • • • • • • • • • • • • • • • •
Bangor	161	21, 435	12	842 .	149	20, 593	į	
Belfast	232	41, 355	2	92	230	41, 263		
Waldoboro	339	70, 372	4	793	335	69, 579		
Wiscasset	141	7.6:7	3	106	139	7. 511		
Bath	259	141, 913	27	3,502	228	136, 139	, 4	2, 272
Portland and Falmouth	365	105, 306	39	12, 280	326	93, 026		
Saco	19	2, 191	3 '	231	16	1.960		
Kennebunk	32	3, 400	ĭ	15	31	3, 385		
York	10	330		15	10	330	,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,	
New Hampshire:			į			i		i
Portsmouth	65	10 400	7	200	•0	10.000	4	
rorusmouth	05	10, 422	•	389	58	10, 033	1	
Massachusetta	2.011	435, 969	166	70, 424	1, 834	861, 794	11	3, 751
Newburyport	64	16, 565	14	893	48	15. 585	2	87
Gloucester	494	33, 228	8 1			32, 9 55		
Salem and Beverly	39			273	486 34	32,933		
		2, 319	5	170		2, 149		
Marblehead	40	2, 866	. 1	11	39	2, 855	•	
Boston and Charlestown	69 9	262, 487	101	43, 465	598	219, 022	·	•••••
Plymouth	31	1, 700	1	344	30	1, 356	1	1
Barnstable	307	28, 908	1 :	46	300	28, 862	1	
Nantucket	16	1,041	1 '	578	15	463		
Edgartown	20	981	. . 		20	981	1	
New Bedford	202	35, 928	14	2, 836	188	33, 092		
Fall River	99	49, 946	20	21, 808	70	24, 474	9	3, 66
hode Island	265	39, 111	49	21, 129	214	17, 293	2	686
<u> </u>				<u> </u>			·	
Providence	131	32, 289	32	19, 136	97	12, 464	2	. 681
Bristol and Warren	30	1,454	3	125	27	1, 329		
Newport	104	5, 368	14	1,868	90	3, 500		
•nnecticut.	818	109, 659	153	36, 400	504	47, 418	161	25, 841
Stonington	105	6, 448	11	9 98#	94	4, 192		i
New London	172			2, 256			ļ	
Middletown		32, 468	36	16, 106	121	12, 360	15	4,00
Now Verse	95	14, 088	18	3, 887	.56	6,048	21	4, 138
New Haven Fairfield	275 171	45, 331 11, 324	48 40	8, 544 5, 60 7	103 130	19,°229 5, 569	124	17,558

COMPARATIVE STATISTICS—Continued.

TABLE 28.—FLEETS FOR THE 10 YEARS 1880-1889—Continued.

1886-Continued.

CUSTOMS DISTRICTS.	TO	TAL.	STEA	AMERS.	BAILING	VESSELS.	UNRIGG	ED ('RAFT.
CUSIOMS DISTRICTS.	Number.	Tonnage.	Number.	Tonnage.	Number.	Tonnage.	Number.	Tonnage.
New York	3, 988	912, 396	1,057	357, 364	2, 454	459, 990	477	95, 00
New YorkSag Harbor	3, 756 232	. 898, 475 13, 921	1, 030 27	354, 991 2, 373	2, 250 204	449, 223 10, 767	476 1	94, 20 70
New Jersey	1, 107	87, 738	99	13, 380	958	59, 949	50	14,44
Newark Perth Amboy	71 376	8, 768 36, 197	34 40	3, 634 7, 298	37 286	8, 134 14, 490	50	14, 40
Little Egg HarborGreat Egg Harbor	53 133	4, 127 16, 788	3 6	177 461	50 127	3. 950 16, 327	ļ	••••••••••••••••••••••••••••••••••••••
Bridgeton	431 43	20, 280 3, 578	5 11	679 1, 131	426 32	19, 601 2, 447		
Pennsylvania: Philadelphia	825	225, 300	266	74, 837	526	143, 162	33	7, 3
Delaware: Delaware	175	16, 731	26	4,061	149	12, 670		,
Maryland	2, 233	144, 882	1470	54, 434	2, 054	88, 240	9	2, 20
Baltimore	1, 232	122, 329	165	54, 120	1, 058	66, 001	9	2, 20
Annapolis. Eastern	130 871	2, 938 19, 615	14	106 208	129 867	2, 832 19, 407		• • • • • • • • • • • • • • • • • • • •
District of Columbia: Georgetown	67	10, 081	31	8, 636	35	937	1	50
Virginia	1, 264	42, 257	97	7, 815	1, 167	34, 442		
Alexandria	76	4,904	10	447	66	4, 457		
Tappahannock :	146 58	4, 053 6, 641	3 16	170 1,027	143 42	3, 883 5, 614		• • • • • • • • • • • • • • • • • • • •
Petersburg	8	255	1 4	210	4	45		· · · · · · · · · · · · · · · · · · ·
Yorktown	213	4, 289	4	820	209	3, 469		
Norfolk and Portamouth	425 338	16, 377 5, 738	58 2	5, 005 136	367 336	11, 372 5. 602	:	•••••••
North Carolina	331	12, 690	58	4,415	273	8, 275		
Albemarle	.71	2, 883	27	2, 305	44	578		•••••
Pamlico	114 87 59	2, 847 1, 597 5, 363	16 2 13	919 99 1. 092	98 85 46	1, 928 1, 498 4, 271		
South Carolina	206	11,625	49	6, 229	157	5, 396	ļ <u></u>	
Georgetown	22 160 24	1, 939 8, 237 1, 449	14 26 9	972 4, 637 620	8 134 15	967 3, 600 829		· · · · · · · · · · · · · · · · · · ·
Georgia	131	32, 463	49	23, 827	. 82	8, 636	<u> </u>	
Savannah Brunswick St. Mary	90 37 4	25, 580 5, 966 917	34 14 1	22, 455 1, 338 34	56 23 3	3, 125 4, 628 883		
Florida	491	33, 711	115	12, 430	376	21, 281	; 	
Fernandina	15	3, 709	3	389	12	2, 920		
St. John. St. Augustine	75	6, 193 332	52	4, 258	23 5	1, 925 56		
Key West	173	7, 851	3 17	276 4, 005	156	3,816		
St. Mark	48 ,	1, 125	10	722	38	403	!	
Pensacola	39 133	1, 852 13, 049	11 19	1, 242 1, 538	28 114	610 11,511		
Alabama: Mobile	132	10, 983	49	5, 824	. 75	4, 833	8	3:
Mississippi: Pearl River	151	5, 953	9	861	142	5, 092		•••••
Louisiana	453	45, 680	57	32, 913	396	12. 767		· · · · · · · · · · · · · · · · · · ·
New Orleans Teche	352 101	42, 981 2, 699	27 30	31, 567 1, 346	325 71	11, 414 1, 353	1	••••••
Fexas	258	12, 658	39	5, 891	212	5, 734	7	1, α
GalvestonSaluria	190 23	10, 604 303	34	5, 459	151	4, 335	5	8:
Corpus Christi	23 33	1,302	2	158	23 29	. 303 921	2	2
Brazos de Santiago	12	419	3	274	9	175	1	

COMPARATIVE STATISTICS—Continued.

TABLE 28.—FLEETS FOR THE 10 YEARS 1880-1889—Continued.

1887-Continued.

	TO	TAL.	STEA	MERS.	SAILING	VESSELS.	UNRIGG	ED CRAPT.
CUSTOMS DISTRICTS.	Number.	Tonnage.	Number.	Tonnage.	Number.	Tonnage.	Number.	Tonnage.
orth Carolina	348	12, 739	63	4, 630	285	8, 109		i
Albemarle	77 118 101 52	2, 998 3, 103 1, 845 4, 793	27 19 2 15	2, 302 1, 187 190 1, 041	50 99 99 37	696 1, 916 1, 745 3, 752		
outh Carolina	216	12, 537	56	6, 677	160	5, 860		
Georgetown Charleston Beaufort	21 174 21	2, 063 9, 522 952	12 83 11	860 5, 074 743	9 141 10	1, 203 4, 448 209	· · · · · · · · · · · · · · · · · · ·	
sorgia	. 135	32, 551	50	23, 403	85	9, 148		! ;••••••
Savannah Brunswick St. Mary	89 43 8	23, 806 8, 166 579	32 17 1	21, 687 1, 682 34	57 26 2	2, 119 6, 484 545		
orida	505	37, 388	108	12, 239	396	25, 117	1	32
Fernandina St. John St. Augustine Key West St. Mark Apalachicola Pensacola	14 60 11 186 47 40 147	3, 586 7, 309 405 7, 123 1, 370 3, 653 13, 942	1 41 3 19 10 10 12 22	67 4, 812 272 3, 553 734 1, 389 1, 412	13 19 8 167 36 28 125	3, 519 2, 497 133 3, 570 604 2, 264 12, 530	1	32
abama : Mobile	125	9, 824	58	6, 150	63	3, 136	9	538
ssissippi: Pearl River	156	9, 511	8	814	148	8, 697		,
uisiana	444	43, 024	55	30, 449	389	12, 575	ļ	·
New Orleans	337 107	40, 242 2, 782	23 32	29, 009 1, 440	314 75	11, 233 1, 342		
X88	238	11, 475	38	3, 658	192	6, 613	8	1, 20-
Galveston Saluria. Corpus Christi Brazos de Santiage Paso del Norte	184 15 28 9	9, 196 212 1, 224 418 425	31 2 3 2	2, 801 158 274	147 15 24 6	5, 414 212 843 144	6	99

1888

Total	17, 180	2, 587, 089	2, 763	785, 164	13, 459	1, 584, 309	958	217
Maine	2, 221	409, 664	120	22, 931	2, 088	376, 441	13	10
Passamaquoddy Machias Frenchman Bay Castine Bangor	173 190 232 242 144	19, 947 16, 589 14, 506 13, 612 21, 281	14 5 13 2 10	5, 040 106 740 30 736	159 185 219 240 133	14, 907 16, 283 13, 766 13, 582 20, 307	1	
Belfast Waldoboro Wiscasset Bath	170 344 116 255	31, 321 61, 220 7, 074 139, 856	2 6 2 27	84 1,006 229 4,165	168 338 114 216	31, 237 60, 214 6, 845 125, 637	12	
Portland and Falmouth	803 16 27 9	79, 865 1, 277 2, 981 335	36 2 1	10, 571 198 26	267 14 26 9	69, 294 1, 079 2, 955 335	ļ	
New Hampshire: Portsmouth	65	10, 149	9	418	56	9, 731	l <u></u> .	•••••
Massachusetts	1, 887	433, 133	166	77, 055	1, 695	337, 101	26	18_ \$\$7
Newburyport Gloucester Salem and Beverly Marblehead Boston and Charlestown	39 469 44 33 667	12, 642 32, 828 4, 291 2, 966 265, 050	12 8 6 2 102	784 311 181 57 48, 326	25 460 38 31 551	11, 771 32, 395 4, 110 2, 909 201, 671	14	15 =
Plymouth Barnstable Nantucket Edgartown New Bislford Fall River	20 282 19 31 185	1, 300 24, 752 488 935 34, 817 53, 064	1 1 13 21	344 46 3, 805 23, 201	19 281 19 31 172 68	956 24, 706 488 935 31, 012 26, 148	9	

TABLE 28.—FLEETS FOR THE 10 YEARS 1880-1889—Continued.

1888-Continued.

	TO	TAL.	STE	AMERS.	SAILING	VESSELS.	UNRIGG	ED CRAFT.
CUSTOMS DISTRICTS.	Number.	Tonnage.	Number.	Tonnage.	Number.	Tonnage.	Number.	Tonnage.
Rhode Island	246	36, 728	54	20, 534	189	15, 148	.3	1,04
Providence	108	28, 705	30	17, 900	75	9, 759	3	1, 04
Bristol and Warren Newport	28 110	1, 415 6, 608	4 20	135 2, 499	24 90	1, 280 4, 109		
Connecticut.	812	119, 753	166	38, 732	483	54, 212	163	26, 80
Stonington	109	5, 482	7	1, 070	102	4, 412		
New London	177 82	38, 131 12, 071	40 22	17, 866 4, 123	119	15, 058 3, 744	18 20	5, 20 4, 20
New Haven Fairfield	277 167	51, 613 12, 456	53 44	9, 514 6, 159	103 119	25, 271 5, 727	121	16, 8: 5:
lew York	4, 050	908, 475	1, 100	372, 743	2, 329	409, 455	621	126, 2
New YorkSag Harbor	3, 806 244	. 895, 481 12, 994	. 1,074 26	369, 794 2, 949	2, 112 217	400, 191 . 9, 264	620 1	125, 41 7
New Jorsey	1, 141	91, 857	99	13, 048	979	58, 346	63	20, 40
Newark Perth Amboy	68 398	6, 512 42, 190	34 42	3, 755 7, 215	34 293	2, 757 14, 512	63	20, 44
Little Egg Harbor	43	2, 993			43	2, 993		
Great Egg Harbor	158 438	17, 780 19, 536	7	553 395	151 434	17, 227 19, 141		
Burlington	36	2, 846	12	1, 130	24	1,716		
Philadelphia	796	206, 908	264	74, 208	501	125, 316	31	7, 3
Delaware	202	17, 616	30	4, 207	172	13, 409	 !	• • • • • • • • • • • • • • • • • • • •
Maryland	2, 167	141, 432	162	55, 767	1,988	82, 424	17	3, 2
Raltimore Annapolis Eastern	1, 172 144 851	120, 100 3, 115 18, 217	. 158 4	55, 513 254	997 144 847	61, 346 3, 115 17, 963	17	3, 2
District of Columbia: Georgetown	83	10, 974	36	8, 691	47	2, 283		
Virginia	1, 307	41, 190	99	8, 137	1, 207	32, 982	: 1	
AlexandriaTappahannock	72 140	4, 320 3, 804	10	428 304	62 134	3, 892 3, 429	1	
RichmondPetersburg.	66	6,776	16	1,304	50	5, 472 30	<u> </u>	
Yorktown	5 222	67 6, 517	2 3	37 785	219	5, 732		
Norfolk and Portsmouth	144 358	13, 641 6, 065	59 4	5, 021 258	385 354	8, 62 0 5, 8 0 7		'
North Carolina	370	13, 204	72	5, 187	298	8,017	ļ	
Albemarle	82	3, 143	31	2, 461	51	682		· · · · · · · · · · · · · · · · · · ·
Pamlico	126 109	3, 294 1, 904	21 3	1, 266 154	105 106	2, 028 1, 750		ļ
Wilmington	53	4, 868	17	1,306	36	3, 557	!	'
Georgetown.	· 220	2, 674	13	6, 703	163	1,700	<u></u>	
Charleston Beaufort	168 28	7, 719 1, 079	33 11	5, 006 723	135 17	2, 713 356		••••••
Jeorgia	135	31, 732	53	23, 633	80	6, 922	2	1,1
Sevannah	90 42	25, 217 6, 163	34 18	21, 458 2, 141	54 24	2, 582 4, 022		
St. Mary	3	. 352	1	34	2	318	•	
Florida		32, 319	_ 122	12, 282	406	20, 037	,	
Fernandina St. John	15 71	4, 042 6, 943	47	5, 204	14 24	3, 975 1, 739		·
St. Augustine Key West	20 195	578 7, 155	8 22	391 3, 269	12 173	187 3, 886		
St. Mark	42	1,042	1 8	403	34	639		
ApalachicolaPenaacola	42 143	3, 632 8, 927	15 21	1, 633 1, 315	122	1, 999 7, 612		
Alabama: Mobile	129	10, 119	50	5,712	70	3, 869	9	5
Mississippi:		l	fl .	I	3			

COMPARATIVE STATISTICS—Continued.

TABLE 28.—FLEETS FOR THE 10 YEARS 1880-1889—Continued.

1888-Continued.

	TO	TAL.	STEA	MERS.	8AILING	VESSELS.	UNRIGGE	D CRAPT.
CUSTOMS DISTRICTS.	Number.	Tonnage.	Number.	Tonnage.	Number.	Tonnage.	Number.	Tonnage.
Louislana	435	42, 955	58	31, 062	377	11, 893		
New Orleans	825 110	39, 535 3, 420	23 35	28, 865 2, 197	302 75	10, 670 1, 223	110000000000000000000000000000000000000	- •••••••••••
Texas	229	9, 860	39	3, 43 0	181	5, 089	9	1, 341
GalvestonSaluria.	180 13	7, 958 195	32	2, 573	142 13	4, 404 195	6	981
Corpus Christi Brazos de Santiago	26 7	763 382	2 3	158 274	22	382 108	2	223
Paso del Norte	3	562	2	425			1	137

1889

•		1981	,					
Total	17. 165	2. 555, 649	2, 829	798, 912	13, 336	- 1, 52 5 , 315	 1,000	231, 42
Maine	2, 103	376, 010	123	24, 208	1, 968	341, 693	 12	10, 106
•	· - ·		i	· ·	:		1-	
Passamaquoddy	157	19, 356	13	4,811	144	14, 545	• • • • • • • • • • • • • • • • • • • •	
Machias Frenchman Bay	194 226	16, 620	.5	109	. 189		· · · · · · · · · · · · · · · · · · ·	
Castine	252	14, 763	12	721 78	214 249	14, 042 13, 588	•••••••••••	· • • • • • • • • • • • • • • • • • • •
Bangor	148	13, 666 23, 895	13	1, 102	134	22, 555	1	226
· ·	140	20,000		1,		12,000	• 1	
Belfast	148	25, 468	1	35	147	25, 433		· · · · · · · · · · · · · · · · · · ·
Waldoboro	316	50, 987	6	848	310	50, 139		
Wiscasset	97	6, 228	1	50	96	6, 178	. <u></u> ¦	
Bath	224	117, 415	30	5, 724	183	101, 820	11	9, 871
Portland and Falmouth	301	83, 699	36	10, 506	265	73, 193	ł	
Saco	ĭi	841	2	198	200	643		
Kennebunk	24	2, 864	1	26	23	2, 838		
York	5	208			5	208		· · · · · · · · · · · · · · · · · · ·
You Hannakina			i	19	ì	H	ļ	
New Hampshire: Portsmouth	63	10,057	8 .	400	55	9, 657	. 	• • • • • • • • • • • • • • • • • • • •
		l i	:	-		ls.		
Massachusetts	1,828	411, 244	174	80, 527	1,621	306, 749	33	23, 968
Newburyport	28	9, 091	9	468	17	8, 536	2	87
Gloucester	462	33, 714	8	311	453	33, 281	ī '	122
Rolam and Rayarly	36	2. 663	4	. 103	32	2, 560 2, 122	• • • • • • • • • • • • • • • • • • • •	· · · · · · · · · · · · · · · · · · ·
Marblehead Boston and Charlestown	28	2, 194	3	72	25	2, 122		
Boston and Charlestown	675	257. 051	113	50, 533	542	186, 908	20	19, 610
Plymouth	19	1,370	1	844	18	1,026.		
Barnstable	275	21, 617	2	114	273	21,503		· · · · · · · · · · · · · · · · · · ·
Nantucket Edgartown.	20 34	435 1, 325	······································	16	20 33	435 1, 309	• • • • • • • • • • • • • • • • • • • •	• • • • • • • • • • • • • • • • • • • •
New Bedford	162	31, 349	12	4. 123	150	27, 226	• • • • • • • • • • • • • • • • • • • •	
Fall River.	หอ	50, 435	21	24, 443	58	21, 843	10	4.149
1 611 201 02		35, 155	!	21, 200	•			4
Rhode Island	253	39, 996	60	24, 489	190	14, 461	3	1, 046
Providence	108	31, 263	33	21, 627	72	8, 590	3	1,046
Bristol and Warren	27	1.312	5	171	22	1, 141		
Newport	118	7. 421	22	2, 691	96	4, 730	••••••	· · · · · · · · · · · · · · · · · · ·
Connecticut	796	119, 303	168	38, 076	457	52, 277	171	28, 960
Stonington	111	5, 206	8	736	102	3, 988	1	482
New London	172	38, 807	38	17, 629	114	15, 607	20	5,571
Hartford	81	11, 313	20	3, 505	39	3, 465	22	4, 343
New Haven	268	50, 445	52	8, 510	92	23, 951	124	17, 984
Fairfield	164	13, 532	50	7. 696	110	5, 266	4 -	570
New York	4, 092	936, 508	1, 099	375, 626	2, 361	430, 645	632	130, 237
	:							
New York	3, 874	925, 015	1, 076	372, 896	2. 167	422, 664	631	1 39 , 454 78:
Sag Harbor	218	11, 493	23	2, 730	1 94	7, 981	1	787
New Jersey	1, 172	92, 623	104	13, 124	997	57, 547	71	21, 95
		ii				'		
Newark	70.	6. 380	36 46	3, 486 7, 841	34 307	2, 894 14, 688	70	21.80
Perth Amboy Little Egg Harbor	423 43	44, 381 2, 731	1	52	42	2. 679	10	21,00
Great Kog Harbor	169	18, 123	4	.286	165	17, 837		
Bridgeton	429	18, 162	- Ā	395	425	17, 767	•••••••	
Great Egg Harbor Bridgeton Burlington	38	2, 896	13	1.064	24	1, 682	1	15
Pennsylvania: Philadelphia	800	203, 027	270	73, 195	484	118.695	46	11, 13
Delaware:			!	i!				

TABLE 28.-FLEETS FOR THE 10 YEARS 1880-1889-Continued.

1889-Continued.

	то	TAL.	STEA	MERS.	SAILING	VESSELS.	t'NR1GG	ED CRAFT.
CUSTOMS DISTRICTS.	Number.	Tonnage.	Number.	Tonnage.	Number.	Tonnage.	Number.	Tonnage.
faryland	2, 195	136, 747	169	57, 665	2,010	76, 744	16	2, 33
75-741	1 100		100		1	··	10	
Baltimore	1, 163 154	114, 037 3, 309	163	57, 221	990 154	55, 425 3, 309	10	1, 39
Eastern	878	19, 401	6	444	866	18, 010	6	91
Nstrict of Columbia: Georgetowu	108	11, 741	37	8, 745	71	2, 996	ļ	·
irginia	1, 329	42, 798	116	10, 028 .	1, 212	32, 699	1	7
Alexandria	74	2, 069	11	495	63	1, 574	,	
Tappahannock	145	3, 995	5	304	139	3, 6 20	1	7
Richmond	64	5, 095	17	1, 193	47	3, 902		· · · · · · · · · · · · · · · · · · ·
PetersburgYorktown	5 ' 213 -	67 6, 286	. 4	37 1, 195	209	30 5, 091		
Norfolk and Portsmouth	466	18, 976	70	6, 098	396	12, 878		
Cherrystone	362	6, 310	7	706	355	5, 604		
North Carolina	398	12, 951	78	5, 539	320	7, 412		i
Albemarle	91	3, 321	33	2, 451	58	870		
Pamlico	132	3, 385	23	1, 424	109	1, 961		
Beaufort	124	2, 166	3	154	121	2, 012		
Wilmington	51	4, 079	19	1, 510	32	2, 569	·	•••••••
South Carolina	228	12, 148	59	6, 914	169	5, 234	······································	
Georgetown	24	2, 367	14	1,017	10	1,350		
Charleston	174	8, 378	34	5. 222	140	3, 156		
Beaufort	30	1. 403	11	6 75	19	728		'
Jeorgia	145	32, 344	61	25, 723	83	6, 612	1	
Savannah	93	24, 188	34	22, 018	58	2, 161	1	1
Brunswick	49	8. 081	25	3, 653	24	4, 428	<u> </u>	!
St. Mary	3	75	2	52	1	23		· · · · · · · · · · · · · · · · · · ·
Torida	522	27, 618	122	9, 986	400	17, 632		
Fernandina	14	3, 120	2	181	12	2, 939]	
St. John	72	5, 939	45	4, 085	27	1,854		
St. Augustine Key West	23 155	447 4. 172	8 9	194 1, 6 67	15 146	253 2, 505		
Tampa	37	929	12	693	25	236	1	
St. Mark	34	715	8	372	26	343	1	
Apalachicola	40	3, 015	15	1, 383	25	1,632	\	
Pensacola	147	9, 281	23	1, 411	124	7, 870		**************
Alabama: Mobile	130	10, 312	47	4, 913	77	4, 986	6	41
dississippi: Pearl River	170	11, 140 •	12	1,872	158	9, 268		
ouisiana	409	40, 695	. 49	30, 330	360	10, 365	ii.	
John Diego							.)	
New Orleans	308 101	37, 628 3, 072	21 28	28, 454 1, 876	287 73	9, 169 1, 196	11	
Ceras	229	9, 277	42	3,584	179	4, 501	8	1, 19
Galveston	178	7, 361	35	2, 728	138	3, 800		83
Saluria	11	183			.' 11	183		`.
Corpus Christi Brazos de Santiago.	29 8	768 405	2 3	158 274	25 5	387 131	2	į 22
DIGEOR UP SHILLINGU	3	560	2	424	11 9	191		18

TABLE 29.—AGGREGATES AND AVERAGES FOR THE 10 YEARS 1880-1889 (ALL VESSELS)—NUMBER, AGGREGATE TONNAGE, AND AVERAGE TONNAGE OF ALL VESSELS REGISTERED IN THE CUSTOMS DISTRICTS OF THE ATLANTIC COAST AND GULF OF MEXICO DURING THE 10 YEARS 1880-1889.

		1880			1881	1		.1882		:	1888		:	1884	
CUSTOMS DISTRICTS.		Tonna	ge.		Tonna	ge.	3.	Touna			Топиа	ge.		Tonna	ige.
	Num- ber.	Total.	Aver- age.	Num- ber.	Total.	Aver- age.	Num- ber.	Total.	Aver-	Num- ber.	Total.	Average.	Num- ber.	Total.	Average.
Total	17, 484	2, 657, 349	152	17, 589	2, 652, 319	151	17, 897	2, 714, 281	152	17, 856	2, 770, 017	155	17, 922	2, 819, 586	157
Maine	2, 643	508, 729	192	2, 561	504, 090	197	2, 590	525, 449	203	2, 608	533, 791	205	2, 578	543, 432	211
Passamaquoddy	197 176 243 319 174	23, 510 19, 355 14, 849 19, 082 26, 686	119 110 61 60 153	190 155 243 311 160	22, 383 14, 503 15, 045 18, 870 25, 368	118 94 62 61 159	190 166 244 202 168	21, 778 14, 400 14, 532 16, 778 26, 499	115 87 60 57 158	192 181 250 270 168	20, 291 16, 737 14, 609 16, 195 25, 659	106 92 58 60 153	187 194 236 252 182	19, 973 20, 962 14, 704 14, 138 27, 525	10 10 6 5
Belfast	236 421 164	47, 064 84, 017 9, 851 135, 970	199 200 60	230 403 158 272	46, 024 83, 915 8, 722 140, 543	200 208 55 517	237 409 149 289	49, 359 91, 137 8, 040 155, 477	208 223 54 538	245 408 150 296	48, 465 93, 709 7, 684 165, 795	198 230 51 560	252 372 150 299	51, 677 84, 671 7, 326 173, 749	20 22 4 58
Portland and Falmouth Saco Kennebunk York	369	118, 700 655 8, 673 311	322 36 202 35	369 19 39 12	118, 235 1, 559 8, 559 373	320 82 219 31	39	116, 600 1, 884 8, 614 351	312 90 221 29	381 20 36 11	117, 120 2, 320 4, 864 343	307 116 135 31	387 17 38 12	119, 900 2, 504 5, 917 396	310 147 156 33
New Hampshire: Portsmouth	74	9, 688	131	74	9, 841	133	65	9, 045	139	66	9, 062	137	70	10, 574	151
Massachusetts	2, 299	430, 182	187	2, 235	415, 109	186	2, 252	429, 092	191	2, 232	442, 009	198	2, 156	437, 364	300
Newburyport Gloucester Salem and Beverly Marblehead Boston and Charlestown	66 476 68 61 808	13, 188 28, 195 6, 651 2, 419 264, 263	200 59 98 40 327	64 469 62 53 803	12, 445 27, 302 5, 409 1, 791 253, 551	194 58 87 34 316	61 478 64 57 835	11, 637 27, 850 5, 291 1, 963 266, 964	191 58 83 34 320	70 503 48 48 791	18, 423 31, 342 4, 060 2, 540 261, 424	263 62 85 53 330	72 496 41 42 789	18, 910 31, 762 1, 772 2, 777 261, 838	263 64 65 65 65 65 65 65 65 65 65 65 65 65 65
Plymouth Barnstable Nantucket Edgartown New Bedford Fall River	340 16 24 265	2, 963 30, 156 1, 306 1, 540 44, 838 34, 663	58 89 82 64 169 280	47 315 16 25 256 125	2,444 27,817 1,349 1,906 43,231 87,864	52 88 84 76 169 303	40 322 16 23 232 124	2, 071 30, 171 1, 312 1, 439 42, 187 38, 207	52 94 82 63 182 308	45 332 17 24 233	2, 701 32, 736 1, 376 1, 362 41, 228 44, 817	60 99 81 57 177 370	45 312 19 26 208 106	2, 408 30, 936 1, 537 1, 572 36, 979 46, 873	5 4 4
Rhode Island	300	41, 106	137	302	38, 399	127	309	44, 240	143	282	42, 012	149	291	41, 499	1-
ProvidenceBristol and Warren Newport	125 81 144	34, 386 1, 449 5, 271	275 47 37	131 35 136	31, 727 1, 828 4, 844	242 52 36	144 36 129	37, 544 2, 039 4, 657	261 57 36	139 33 110	36, 226 1, 224 4, 562	261 37 41	142 34 115	34, 304 1, 891 5, 304	2
Connecticut	822	82, 742	101	828	87, 142	105	866	96, 410	111	865	102, 975	119	861	109, 198	1
Stonington New London Middletown New Ilaven Fairfield	124 200 106 226 166	7, 803 22, 232 14, 066 28, 178 10, 463	63 111 133 125 63	118 198 105 237 170	8, 263 23, 552 15, 404 30, 304 9, 619	70 119 147 128 • 57	110 185 104 291 176	8, 223 25, 914 14, 501 38, 550 9, 222	75 140 139 132 52	99 187 99 312 168	6, 455 28, 726 14, 583 43, 535 9, 673	65 154 147 140 58	103 192 97 297 172	6, 465 32, 681 14, 332 45, 195 10, 525	1 1
New York	4,009	934, 950	233	4, 095	934, 860	228	4, 101	945, 231	230	4, 120	943, 587	229	4, 236	978, 371	2
New York	3, 721 288	918, 057 16, 893	247 59	3, 801 294	917, 651 17, 209	241 59	3, 830 271	928, 658 16, 573	242 61	3, 870 250	928, 333 15, 254	240 61	3, 986 250	964, 556 13, 815	2
iew J ersey	1, 087	87, 556	81	1, 126	96, 150	85	1, 194	101, 466	85	1, 193	99, 519	83	1, 103	91, 59 5	ا
Newark Perth Amboy Little Egg Harbor Great Egg Harbor Bridgeton Burlington	64 435 72 127 314 75	5, 316 36, 722 5, 583 14, 859 16, 158 8, 923	83 84 78 117 51 119	58 457 67 135 338 71	4, 485 43, 510 5, 237 16, 548 17, 694 8, 676	77 95 78 123 52 122	517 66 139 340 70	4, 981 48, 648 4, 867 16, 652 17, 759 8, 559	80 94 74 120 52 122	70 505 65 127 354 72	6, 002 47, 991 4, 652 14, 530 17, 714 8, 630	86 95 72 114 50 120	79 385 60 135 378 66	7, 369 36, 706 4, 396 17, 619 17, 979 7, 526	1
ennsylv ania: Philadelphia	941	209, 112	222	936	209, 568	224	895	205, 663	230	900	221, 508	`246	894	218 , 94 7	2
elaware: Delaware	182	16, 287	89	176	16, 090	91	165	16, 669	101	177	17, 678	100	182	19, 939	-
[aryland	1,788	121, 021	68	1. 840	118, 981	65	1, 922	125, 176	65	1,981	129, 048	65	2, 168	138, 871	
Raltimore	1, 013 118 657	102, 139 2, 262 16, 620	101 19 25	1, 046 120 674	99, 739 2, 273 16, 969	95 19 25	1, 090 120 712	104, 475 2, 273 18, 428	96 19 26	1, 106 122 753	107, 113 2, 548 19, 387	97 2i 26	1, 188 162 818	115, 470 3, 249 20, 152	_
Pistrict of Columbia:	91	8, 771	96	88	9, 236	105	87	10, 568	121	84	10, 746	128	82	10. 968	L

TABLE 29.—AGGREGATES AND AVERAGES FOR THE 10 YEARS 1880-1889 (ALL VESSELS)—Continued.

		1880	İ	İ	1881			1882			1888	į		1884	
Customs districts.		Tonnag	ge.	ĺ	Tonna	ge.	T	Tonna	ge.		Tonna	ge.	į	Tonna	ge.
•	Num- ber.	Total.	Aver-	Num- ber.	Total.	Aver-	Num- ber.	Total	Aver-	Num- ber.	Total.	Aver-	Num- ber.	Total.	Av
irginia	1, 150	33, 555	29	1, 190	33, 343	28	1, 261	37, 311	30	1, 230	38, 285	31	1, 189	41, 305	1.
		0.045			0.000						0.505		•		-
Alexandria	99 102	3, 94 5 2, 6 69	40 26	100 130	3, 628 3, 107	36 24	87 140	3, 654 3, 230	42 23	84 120	3, 525 3, 137	42 26	130	5, 952 3, 243	1
Yorktown	142	2, 436	17	135	1.994	15	131	2, 103	16	202	3, 256	16	219	4, 058	1
Richmond	39	4,657	119	57	5, 955	104	59	6, 468	110	64	7, 385	115	65	7, 908	;
Petersburg	3	47	16	4	264	66	4	278	. 70	5	175	35	5	217	:
Norfolk and Portsmouth	407	14, 521	36	426	13, 326	31	478	16, 041	34	410	15, 447	38	397	15, 335	1
Cherrystone	358	5, 280	15	338	5, 069	15	362	5, 537	15	345	5, 360-	16	285	4, 592	i
orth Carolina	330	12, 669	38	347	15, 765	45	336	13, 340	40	340	14, 875	44	353	17, 096	İ
Albemarle	76	2, 773	36	79	3, 093	39	74	2, 860	39	64	2, 746	43	67	2, 786	1
Pamlico	106	2, 629	25	114	2,700	24	118	3, 033	26	125	3, 454	28	118	3, 227	'
Beaufort	70	1,096	16	65	1,059	16	67	1, 158	17	73	1, 247	17	86	1,614	
Wilmington	78	6, 171	79	89	8, 913	100	77	6, 289	82	78	7, 428	95	82	9, 469	:
uth Carolina	223	11, 482	51	222	11, 7 37	53	228	10, 696	47	219	13, 457	61	221	12, 043	[
Georgetown	19	1, 002	53	11	595	54	17	1, 164	68	18	2, 217	123	21	2, 381	-
Charleston	182	9, 712	53	188	10, 057	53	189	8, 572	45	175	9, 387	54	177	8, 192	
Beaufort	22	768	35	23	1, 085	47	22	960	44	26	1, 853	71	23	1, 470	!
orgia	119	21, 118	177	131	26 , 427	202	120	26, 684	222	120	34, 560	288	131	39, 250	1
Savannah	72	14, 310	199	81	19, 409	240	76	20, 732	273	79	25, 756	326	77	27, 777	1
Brunswick St. Mary	40	5, 286 1, 5 2 2	132 217	47 3	6, 896 122	147 41	40 4	5, 442 510	136	37	8, 648 15 6	234	50 4	10, 832 641	
orida	395	33, 761	85	385	28, 981	75	419	30, 161	72	442	84, 055	77	407	30, 869	1
Fernandina	18	4, 938	274	20	4, 316	216	19	3, 853	203	16	3, 167	198	17	3, 725	}
St. John	47	4, 561	97	48	3, 966	83	59	5, 259	89	59	5, 442	92	12	522	
St. Augustine	2	6 0	30	3	73	24	4	67	17	4	257	64	6	301	
Key West	152	7,082	47	143	5, 610	39	153	6, 462	42	154	6, 864	45	151	5, 997	
St. Mark	30	2, 327	78	20 1	1, 598	80	42	3,042	72	45	3, 179	1 71	46	1, 494	
Apalachicola	32	2, 504	78	31	1, 412	46	35	2, 452	70	34	3, 037	89	30	2, 178	,
Pensacola	114	12, 289	108	120	12, 006	100	107	9, 026	84	130	12, 109	93	145	16, 652	:
abama: Mobile	121	15, 291	126	130	16, 272	125	149	16, 611	111	154	13, 676	89	131	10, 535	
ssissippi: Pearl River	149	4, 966	33	159	6, 527	41	158	6, 110	39	135.	6, 099	45	131	5, 216	
uisiana	497	61, 625	124	489	58, 377	119	503	52, 895	105	. 134	52, 403	121	471	51, 712	
New Orleans	396	57, 848	146	399	53, 085	138	411	49, 941	122	350	49, 457	141	36H	48, 194	Ϊ
Teche	101	3, 777	37	90	3, 292	37	92	2, 954	32	84	2, 946	35	103	3, 518	:
xas	264	12, 738	48	275	15, 415	56	277	11, 464	41	274	10, 672	39	267	10, 802	1
Galveston	184	9, 780	53	195	12, 465	64	191	8, 102		197	8, 313	42	186	8, 144	
Saluria	37	838	23	31	772	25	29	732			696	26	29	548	
Corpus Christi	28	898	32	34	1, 241	37	43	1,908		38	972	26	36 .	1, 134	
Brazos de Santiago	15	1, 222	81	. 15	937	62	14	722	52	12	691	58	16	976	

TABLE 29.—AGGREGATES AND AVERAGES FOR THE 10 YEARS 1880-1889 (ALL VESSELS)—Continued.

		1885		÷	1886		ŀ	1887			1888			1889	
CUSTOMS DISTRICTS.		Tonna	ıge.		Tonna	ge.		Tonns	ge.		Tonna	ge.	!	Tonna	ige.
	Num- ber.	Total.	Aver-	Num- ber.	Total.	Aver-	Num- ber.	Total.	Aver-	Num- ber.	Total.	Aver- age.		Total.	Average.
Total	17. 771	2, 781, 791	157	17, 362	2, 659, 448	153	17. 029	2, 595, 307	152	17, 180	2, 587, 089	151	17, 165	2, 555, 649	14
laine	2, 477	487, 574	197	2, 391	459, 139	192	2.247	416, 381	185	2, 221	409, 664	184	2, 103	376, 010	17
Passamaquoddy Machias Frenchman Bay Castine Bangor	180 196 227 251 167	18, 830 19, 198 13, 920 14, 483 23, 680	98 61 58	173 185 241 234 161	18, 252 17, 886 16, 003 13, 079 21, 435	106 97 66 56 133	161 181 230 233 157	17, 802 16, 606 13, 743 12, 768 21, 587	111 92 60 55 137	173 190 232 242 144	19, 947 16, 389 14, 506 13, 612 21, 281	115 86 63 56 148	157 194 226 252 148	19, 356 16, 620 14, 763 13, 666 23, 895	12 8 6 3
Belfast	255 349 150 260	47, 748 76, 588 7, 211 145, 374	187 219 48 559	232 339 141 259	41, 355 70, 372 7, 617 141, 913	178 208 54 548	187 341 130 248	33, 491 70, 416 8, 317 132, 080	179 206 64 533	170 344 116 255	61, 220 7, 074	184 178 61 548	148 316 97 224	25, 468 50, 987 6, 228 117, 415	17 16 6 52
Portland and Falmouth Saco	379 19 31 13	114, 387 2, 383 3, 357 415	302 125 108 32	365 19 32 10	105, 306 2, 191 3, 400 330	289 115 106 33	323 17 30 9	1, 597 3, 157	262 94 105 34	303 16 27 9	79, 865 1, 277 2, 981 335	264 80 110 37	301 11 24 5	83, 699 841 2, 864 208	27: 70 11: 4:
ew Hampshire: Portsmouth	66	10, 891	165	65	10, 422	160	65	10, 436	161	65	10, 149	156	63	10, 057	16
Iassachusetts	2, 068	442, 837	214	2, 011	435, 909 -	217	1, 887	420, 897	223	1, 887	433, 133	230	1, 828	411, 244	22
Newburyport Gloucester Salem and Beverly Marblehead Boston and Charlestown	63 510 38 44 723	17, 162 33, 943 1, 952 3, 036 267, 805	272 67 51 69 370	64 494 39 40 699	16, 565 33, 228 2, 319 2, 866 262, 487	259 67 59 72 376	38 479 51 35 628	13, 153 32, 568 4, 757 2, 353 249, 864	346 68 93 67 398	39 469 44 33 667	12, 642 32, 828 4, 291 2, 966 265, 050	324 70 98 90 397	28 462 36 28 675	9, 091 33, 714 2, 663 2, 194 257, 051	.03 77 74 76 381
Plymouth Barnstable Nantucket Edgartown New Bedford Fall River	35 305 19 23 209 99	2, 038 29, 609 1, 472 1, 235 36, 446 48, 139	58 97 77 54 174 486	31 307 16 20 202 99	1,700 28,908 1,041 981 35,928 49,946	55 94 65 49 178 505	25 297 15 20 198 101	1, 553 27, 881 458 986 36, 379 50, 945	62 94 31 49 184 504	20 282 19 31 185 98		65 88 26 30 188 541	19 273 20 34 162 89	1, 370 21, 617 435 1, 325 31, 349 50, 435	77 77 39 194 567
thode Island	270	39, 786	147	265	39. 111	148	242	36, 906	153	246	36, 728	149	253	39, 906	158
Providence	127 31 112	32, 881 1, 511 5, 394	259 49 48	131 30 104	32, 289 1, 454 5, 368	246 48 52	109 27 106	29, 493 1, 368 6, 045	271 51 57	108 28 110	28, 705 1, 415 6, 608	266 51 60	108 27 118	31, 263 1, 312 7, 421	63 70 350
onnecticut	833	108, 420	130	818	109, 659	134	682	95, 902	141	812	119, 753	147	79 6	119, 303	130
Stonington New London Middletown	109 176 94	6, 669 31, 881 14, 115	61 181 150	105 172 95	6, 448 32, 468 14, 088	61 189 148	106 178	5, 512 36, 034	52 202	109 177	5, 482 38, 131	50 215	111 172	5, 204 38, 807	47 226
Hartford New Haven Fairfield	284 170	44, 491 11, 264	157 66	275 171	45, 331 11, 324	165 66	85 146 167	12, 623 30, 266 11, 467	149 207 69	82 277 167	12, 071 51, 613 12, 456	147 186 75	81 268 164	11, 313 50, 445 13, 532	140 188 83
ew York	4, 171	986, 145	236	3, 988	912, 396	2:29	4, 033	928, 226	230	4, 050	908, 475	224	4, 092	926, 508	229
New York	3, 930 241	971, 485 14, 660	247 61	3, 756 232	898, 475 13, 921	239 60	3, 79 3 240	913, 575 14, 6 51	241 61	3, 806 244	895, 481 12, 994	235 53	3, 874 218	925, 015 11, 493	:39 53
ew Jersey	1, 077	89, 133	83	1, 107	87, 738	79	1, 098	89. 378	81	1,141	91.857	81	1.172	92, 623	79
Newark Perth Amboy Little Egg Harbor Great Egg Harbor Bridgeton Burlington	66 374 62 133 399 43	5, 349 36, 709 4, 477 17, 904 21, 087 3, 607	81 98 72 135 53 84	71 376 53 133 431 43		95 96 78 126 47 83	375 48 139 427	6, 666 38, 973 3, 947 17, 324 19, 710 2, 758	91 104 82 125 46 77	158 438	6, 512 42, 190 2, 993 17, 780 19, 536 2, 846	96 106 70 113 45 79	70 423 43 169 429 38	6, 380 44, 331 2, 731 18, 123 18, 162 2, 896	91 105 64 107 45
ennsylvania: Philadelphia	842	216, 4 35	257	825	225, 300	273	827	215, 450	ļ	796	206, 908	260	800	203, 027	25
elaware: Delaware	186	19, 94 6	107	175	16, 731	96	188	16, 382	87	202	17, 616	87	195	19, 110	
aryland	2. 280	146, 839	64	2, 233	144, 882	65	2, 227	140, 683	63	2. 167	141, 432	65	2, 195	136, 747	
Baltimore	160	123, 493 8, 174 20, 172	98 20 24	1, 232 130 871	122, 329 2, 938 19, 615	99 23 23	1, 200 149 878	118, 192 3, 215 19, 276	98 22 22	1, 172 144 851	120, 100 3, 115 18, 217	102 22 21	1, 163 154 878	114, 037 3, 309 19, 401	i
strict of Columbia:	72	10, 187	141	67	10, 081	150	77	11, 097	144	83	10, 974	132	108	11,741	1 4

TABLE 29.—AGGREGATES AND AVERAGES FOR THE 10 YEARS 1880-1889 (ALL VESSELS)—Continued.

		1885	:		1886			1887			1888		1	1889	
CUSTOMS DISTRICTS.		Tonna	ge.	- 1	Tonna	ge.		Tonna	ge.		Tonna	ge.		Total. 9	ge.
	Num- ber.	Total.	Aver- age.	Num- ber.	Total.	Aver- age.	Num- ber.	Total.	Aver-	Num- ber.	Total.	Aver- agea	Num-	Total.	Ave
irginia	1, 236	45, 788	37	1, 264	42, 257	33	1, 289	44, 520	35	1, 307	41, 190	32	1. 329	42, 798	1
Alexandria	84	5, 582	66	76	4, 904	65	66	3, 568	54	72	4, 320	60	74	2.069	
Tappahannock	148	4,016	27	146	4, 053	28	145	3, 912	27	140	3, 804	27	145	3 995	
Yorktown	214	3, 730	17	213	4, 289	20	224	7, 534		222	6, 517	29	213		
Richmond	63	10, 017	159	58	6, 641	115	62	6, 043	97	66	6, 776	103	64		
Petersburg	6	229	38	8	255	32	6	195	33	5	67	13	5	67	1
Norfolk and Portsmouth Cherrystone	408 313	17, 017 5, 197	42 17	425 338	16, 377 5, 738	39 17	438 348	17, 376 5, 892	40 17	358	13, 641 6, C65	31 17	466 362		
orth Carolina	350	14, 906	43	331	12, 690	. 38	348	12, 739	37	370	13, 204	36	398	12, 951	
Albemarle	70	2, 794	40	71	2, 883	41	77	2, 998	39	82	2 142	38	91	7 201	
Pamlico	118	2, 794	24	114	2, 883	25	118	2, 998 3, 103	26	126	3, 143 3, 294	26	132		
Beaufort	87	1, 631	19	87	1, 597	18	101	1, 845	1 18	109	1, 904	17	124	2. 166	1
Wilmington	75	7, 596	101	59	5, 363	91	52	4, 793	92	53	4, 863	92	51		
outh Carolina	227	12, 807	56	206	11, 6 25	56	216	12,537	58	220	11, 472	52	228	12, 148	
Georgetown	23	2, 679	116	22	1, 939	88	21	2, 063	98	24	2, 674	111	24	2 367	1
Charleston	183	9, 419	51	160	8, 237	51	174	9, 522	55	168	7,719	46	174		1
Beaufort	21	709	34	24	1, 449	60	21	952	45	28	1, 079	39	30	1, 403	
orgia	133	35, 831	269	131	32, 463	248	135	32, 551	241	135	31,732	235	145	32, 344	
Savannah	88	27, 161	309	90	25, 580	284	89	23, 806	267	90	25, 217	280	93	24, 188	
Brunswick	42	8,091	193	37	5, 966	161	43	8, 166	190	42	6, 163	147	49		
St. Mary	3	579	193	4	917	229	3	579	193	3 !	352	117	3	75	!
orida	489	39, 488	81	491	33, 711	69	505	37, 388	74	528	32, 319	61	522	27, 618	1_
Fernandina	17 ·	3, 591	211	15	3, 309	221	14	3, 586	256	15	4,042	269	14	3, 120	
St. John	74	6, 358	86	75	6, 193	83	60	7, 309	122	71	6, 943	98	72	5, 939	
St. Augustine Key West	8 154	332 7, 402	42	173	332 7, 8 51	42 45	11 186	405 7, 123	37	20 195	578 7, 155	29	23 155	447 4, 172	
St. Mark	53	1, 582	30	48	1, 125	23	47	1, 370	29	42	1,042	25	84	715	
A palachicola	37	1,677	45	39	. 1,852	47	40	3, 653	91	42	3, 632	86	: 40	8, 015	
Pensacola	' 146	18, 546	127	133	13, 049	08	147	13, 942	95	143	8, 927	62	147 37	9, 281 929	i
abama: Mobile	142	10. 958	77	132	10, 983	83	125	9, 824	79	129	10, 119	78	130	10, 312	:
	-					1 (,	1
ississippi: Pearl River	129	5, 396	42	151	5, 953	39	156	9, 511	61	157	7, 549	48	170	11, 140	:
nisiana	471	49, 804	106	453	45, 680	101	444	43, 024	97	435	42, 955	99	409	40, 605	
Non Onleans	371	40.00	100	050	42, 981	122	807	40.010	-! -'	205	00	100	200		
New Orleans	100	46, 604 3, 200	126 32	352 101	2, 099	27	337 107	40, 242 2, 782	119 26	325 110	39, 535 3, 420	122 31	308 101	37, 62 3 3, 072	
8X48	252	8, 620	34	258	12, 658	49	238	11, 475	48	229	9, 860	43	229	9, 277	
Galveston	180	6, 804	38	190	10, 604	56	184	9, 196	50	180	7, 958	44 .	178	7, 361	
Saluria		346	13	23	303	13	15	212	14	13	195	15	11	183	
Corpus Christi	33 13	998 472	30	33 ! 12 !	1, 302 449	39	28 9	1, 224 418	14 46	26	763 382	29 55	29 '	768 405	
	12	479	XK	. 17			•	410	4K	. 7	332	55		405	

COMPARATIVE STATISTICS—Continued.

TABLE 30.—AGGREGATES AND AVERAGES FOR THE 10 YEARS 1880-1889 (STEAMERS)—NUMBER, AGGREGATE TONNAGE, AND AVERAGE TONNAGE OF ALL STEAMERS REGISTERED IN THE CUSTOMS DISTRICTS OF THE ATLANTIC COAST AND GULF OF MEXICO DURING THE 10 YEARS 1880-1889.

		1880			1881		-	1882	:		1888			1884	-
CUSTOMS DISTRICTS		Tonna	ge.	- [Tonna	ge.		Tonna	ge.		Tonna	ge.		Tonna	ge.
	Num- ber.	Total.	Aver-	Num-	Total.	Aver-	Num- ber.	Total.	Average.	Num- ber.	Total.	Average.	Num- ber.	Total.	Aver-
Total	2, 251	631, 302	280	2, 364	644, 204	273	2, 532	692, 959	274	2, 584	730, 308	283	2, 693	755, 754	281
M aine	85	16, 975	200	88	16, 471	187	93	16, 657	179	101	18, 954	188	114	22, 965	201
Passamaquoddy	1	4, 707 165 32 25	428 41 32 23	11 4 2 1	4, 707 89 45 25	428 22 23 25	14 4 4	3, 975 75 75	284 19 19	13 5 6 1	3, 216 90 110 25	247 18 18 25	16 7 5	4, 416 160 125 25	276 23 25 25
BangorBelfastWaldoboroWiscasset	9	557 97 89 1 138	80 49 99 46	8 2 8 3	539 97 1, 008 138	67 49 126 46	8 3 5 2	404 146 815 84	51 49 163 42	9 4 4 2	717 157 793 84	80 39 198 42	12 4 4	806 157 1, 138	67 39 285
Bath	23 2	8, 057 7, 201 105	1:19 313 53	25 22 2	3, 019 6, 699 105	121 305 53	27 23 3	3, 138 7, 685 260	116 334 87	28 25 4	4, 634 8, 825 303	166 353 76	32 30 3	4, 4 0 0 11, 507 231	138 384 77
New Hampshire: Portsmouth	5	206	41	7	249	36	7	254	36	8	413	52	7	378	54
Massachusetts	152	48, 687	320	146	46, 603	319	160	50, 921	318	177	61, 309	363	188	60, 62 6	322
NewburyportGloucesterSalem and Beverly Marblehead	4	. 773 73 811	59 18 203	16 6 1	775 120 14 16	48 20 14 16	15 5 3 1	741 165 44 16	33 15 16	15 6 3	906 180 43	60 30 14	16 1 3	916 69 31	57 69 10
Roston and Charlestown		26, 381 464	296	88	25, 913 325	325	102	29, 842 159	293 159	114	36, 694 344	322	132	34, 382	260
Bårnstable Nantucket Edgartown	1 4	90 1,080	90 270	3	1, 070 11	357 11	8	1,069	356	1 2	7 1, 062	531	2	1,062	531
New BedfordFall River	15	2, 963 16, 052	198 803	11 18	2, 308 16, 0 51	210 892	12 18	2, 727 16, 158	227 898	13 22	2, 786 22, 287	214 1, 013	12 22	2, 320 21, 846	195 963
Rhode Island	59	24, 518	416	54	21, 351	395	54	24, 34 0	451	49	23, 707	484	59	21,687	366
Providence Newport Bristol and Warren	30 21 8	22, 274 1, 968 276	742 94 35	27 17 10	19, 491 1, 656 204	722 97 20	29 16 9	22, 440 1, 613 287	774 101 32	30 13 6	21, 800 1, 722 185	727 132 31	37 15 7	19, 889 1, 580 218	538 105 31
Connecticut	108	30, 047	278	108	30, 379	281	117	32, 066	274	135	34, 203	253	152	35, 617	23-4
Stonington	9 37 25 2 5 12	1, 163 13, 334 5, 917 6, 462 3, 171	129 360 237 258 264	9 37 21 28 13	1, 187 13, 607 5, 668 6, 742 3, 175	132 368 270 241 244	11 36 19 33 18	1, 329 15, 912 4, 325 7, 048 3, 452	121 442 228 214 192	12 41 19 42 21	1, 326 16, 425 4, 445 7, 731 4, 276	111 401 234 184 204	12 46 19 47 28	1, 376 16, 516 4, 269 8, 499 4, 957	11.5
New York	850	292, 629	344	925	305, 741	331	987	327, 974	332	1,006	338, 604	337	1,072	363, 751	39
New York	824 26	290, 674 1, 955	353 75	894 31	303, 394 2, 347	339 76	954 33	325, 427 2, 547	341 77	978 28	336, 327 2, 277	344 81	1, 044 28	361, 439 2, 312	3
New Jersey	113	17, 743	157	123	18, 751	152	135	20, 237	150	127	1 7. 98 2	142	110	16, 423	1-
Newark Perth Amboy Little Egg Harbor. Great Egg Harbor. Bridgeton	27 62 1 2 3	2, 808 10, 212 167 36 149	167 18 50	30 68 1 4 3	2, 977 11, 172 167 65 149	99 164 167 16 50	35 73 2 3 3	3, 450 12, 048 215 48 149	165 108 16 50	32 66 2 2 4	3, 358 9, 840 55 182 181	149 28 61 45	35 48 1 2 5	3, 510 8, 178 48 170 261	
Burlington Pennsylvania: Philadelphia	269	4, 371 72, 201	:	269	4, 221 70, 337	248	19 · 279 ·	4, 327 75, 268	270	20 289	4, 366 79, 022	218	289	4. 256 74, 116	
Delaware: Delaware	21	4, 042	192	23	4, 140	180	19	3, 769	198	21	3, 934	187	25	6, 291	: ===== ا
Maryland	139	38, 742	279	142	38, 478	271	153	47, 626	311	154	47, 371	308	174	50, 497	===
Baltimore	138	38, 723 19	281	141	38, 459 19	273 19	150	47, 318 308	315 103	151 1 2	47, 024 45 302	311 45 151	172	50, 391 106	
District of Columbia: Georgetown	33	6, 851	208	38	7, 668	202	38	8, 278	218	35	8, 406	240	. 31	7, 902	256

TABLE 30.—AGGREGATES AND AVERAGES FOR THE 10 YEARS 1880-1889 (STEAMERS)—Continued.

		1880	İ	1	1881		!	1882		,	1888	!		1884	
CUSTOMS DISTRICTS.	- !	Tonna	ge.		Tonna	ge.	! 	Tonna	ige.	_ _	Tonns	ige.	-	Tonna	ige.
	Num- ber.	Total.	Aver-	Num- ber.	Total.	Aver-	Num- ber.	Total.	Aver-	Num- ber.	Total.	Aver-	Num- ber.	Total.	Ave
irginia	86	6, 716	78	96	7, 896	82	107	8, 545	80	104	 8, 398	81	111	8, 747	
Alexandria	12	754	63	12	756	63	12	699	58	12	481	40	14	566	- : 4
Tappahannock	2	251	126	4	356	89	5	279		3	170	57	2	92	4
Yorktown	· · · · · : <u>. ·</u> ·	· · · · · · · · · · · · · · · · · · ·		l	•••••		l		. ' '	1	57	57	3	178	. 1
Richmond	16 2	986 31	62 16	18	2, 031 74	113 25	20	2, 062 16		19	2, 014 162		20 4	2, 001 210	
Petersburg Norfolk and Portsmouth	54	4, 694	87	59	4, 679	79	67	5, 470		63	5, 495		66	5, 591	į i
Cherrystone					•••••		2	19		2	19		2	19	
orth Carolina	41	3, 511	86	49	4, 034	82	56	4, 686	84	, 55 ,	4, 788	87	63	5, 841	! ;
Albemarle	21	1, 835	87	28	2, 139	76	27	1, 999	74	25	2, 129		25	2, 140	
Pamlico	6	384	64	7	457	65	12	861	72	14	932	67	17	1, 123	
Beaufort	' <u></u> .			·····		· · · · · · · · · · · · · · · · · · ·	" <u></u> . ,			1	33		2	152	
Wilmington	14	1, 292	92	14	1, 438	, 103 ;	17	1,826	107	15	1,694	113	19	1, 926	'
outh Carolina	49	6, 414	131	44	6, 496	148	46	4, 993	109	45	6, 259	139	50	6, 550	1
Georgetown	14	613	44	8	220	28	10	422	42	9	706	• 78	11	834	
Charleston		5, 58G	180	82	6, 080	190	31	4, 258	137	31	5, 240	169	33	5, 307	1
Beaufort	4	215	54	4	196	49	5	313	63	5	313	63	6	409	
eorgia	33	11, 764	356	36	16, 029	445	. 38	16, 708	440	42	21, 525	513	44	23, 246	5
Savannah	18	10, 504	584	20	14, 542	727	22	15, 826	719	31	20, 685	667	31	22, 279	7
Brunswick	12	966	81	14	1, 372	98	14	767	55	8	691	86	12	983	1
St. Mary	3	294	98	2	115	58	2	115	58	3	149	50	1	84	
lorida	. 72 _!	8, 429	117	75	8, 351	m	86	9, 986	116	87	9, 878	114	52	7, 951	1
Fernandina	1	24	24	3	408	136	2	322		2	322		2	355	1
St. John	29	2, 140	74	29	2,024	70	37	2, 855	77	39	2, 551	65			-
St. Augustine	11	27 3, 243	27 295	1 9	27 2, 222	27 247	11	2, 962	269	12	3, 495	291	12	3, 317	
St. Mark	7	3, 243 601	86	, 7 !	412	59	8	2, 902 423	53	5	203		8	563	
A palachicola	7	1, 239	177	6	1, 157	193	9	1, 242	138	10	1,603	160	11	1, 400	
Pensacola	16	1, 155	72	20	2, 101	105	. 19	2, 182		19	1,704	90	19	2, 316	
labama: Mobile	44	7, 005	159	46	6, 585	143	51	7, 209	141	45	5, 781	128	41	5, 600	.! ,
finalestant.				4 !				'	i	i i					1
lississippi: Pearl River	12	816	68	. 10	656	66	18	1, 102	61	14	912	65	12	919	
	;				00.00				; i		nh ==:		اما	20. 512	· [
ouisiana	48	29, 567	616	47	29, 320	624	51	28, 631	561	54	32, 554	603	60	33, 517	1
New Orleans	21	27,920			27, 920		24	27, 442		26	30, 984		27	31, 688	
Teche	27	1,647	61	26	1,400	54	27	1, 189	44	28	1,570	56	33	1, 829	'
exas	32	4, 439	139	38	4, 669	123	37	3,709	100	36	3, 308	92	39	3, 630	
Galveston	28	3, 444	123	34	4,013	118	33	3, 149	95	81	2, 7. 2	87	33	2, 954	
Corpus Christi							1	112	112	2	158	79	2	158	
Brazos de Santiago	4	995	249	1 4	656	. 164	. 3	448	3 149	il 3	448	149		518	1

COMPARATIVE STATISTICS—Continued.

TABLE 30.—AGGREGATES AND AVERAGES FOR THE 10 YEARS 1880-1889 (STEAMERS)—Continued.

		1885			1886			1887	i	1	1888			1889	
CUSTOMS DISTRICTS.		Tonna	ge.	ı	Tonna	ge.		Tonna	ge.	V- !	Tonna	ge.		Tonna	 ge.
	Num- ber.	Total.	Aver-	Num- ber.	Total.	Average.	Num- ber.	Total.	Aver-	Num- ber.	Total.	Aver-	Num- ber.	Total.	Average.
Total	2, 671	773, 444	290	2, 662	763, 302	287	2, 680	773, 823	289	2. 763	785, 164	284	2. 829	798, 912	262
Maine	119	22, 242	187	116	22, 043	190	112	19, 938	178	120	22, 931	191	123	24. 208	197
Passamaquoddy	18	4, 169	232	11	3, 510	319	13	4, 647	357		5, 040	360	13	4. 811	::70
Machias. Frenchman Bay Castine	5 . 6 1 .	102 218 25	20 36 25	5 7 3	123 494 55	25 71 18	8 2	89 521 30	22 65 15	5 13 2	106 740 30	21 57 15	5 12 3	109 721 78	22 60 36
Bangor	12	789	66	12	842		11	726	66	10	736	74	13	1, 102	. x5
Belfast	4	157 1, 138	39 285	2	92 793	46 198	2 5	67 819	34 164	6	84 1, 006	168	1 6	35 848	35 141
Wiscasset	2	106	53	2	106	53	i	50	50	2	229	115	1	50	50
Bath	28 . 36 . 3	3, 530 11, 777 231	126 327 77	27 39 3 1	3, 502 12, 280 231 15	130 315 77 15	26 37 2 1	3, 470 9, 306 198 15	133 252 99 15	27 36 2 1	4, 165 10, 571 198 26	154 294 99 26	30 36 2	5, 724 10, 506 198 26	191 292 99 26
New Hampshire: Portsmouth	, :	389	56	7	389	56	7	389	56	9	418	46	8	400	50
Massachusetts	156	68, 941	442	166	70, 424	424	154	70, 964	461	166	77, 055	464	174	80. 527	463
Newburyport	15	906	: 60	14	893	64	11	801	73	12	784	65	9	468	52
Gloucester	6	209 39	35 20	8 5	273 170	34	7 6	246 182	35 30	8 .	311 181	39	8	311 103	39 26
Marblehead	2	73	20 37	1	11	11	2	49	25	2	57	29	3	72	24
Boston and Charlestown	96	42, 170	489	101	43, 465	430	92	43, 014	468	102	48, 326	474	113	50, 533	447
Plymouth	1	344	344	1 1	344 46	344	1 1	344 46	344 46	1 1	344 46	344 46	1 2	344 114	344 57
Nantucket	2	1, 062	531	i	578	578					•••••		j		í
Edgartown New Bedford Fall River	12 20	2, 336 21, 802		14 20	2, 836 21, 808	203 1, 090	16 18	4, 005 22, 277	250 1, 238	13 21	3, 805 23, 201	293 1, 105	1 12 21	16 4, 123 24, 443	16 344 1, 164
Rhode Island	44	21, 209	482	49	21, 129	431	50	20, 384	408	54	20, 534	380	60	24, 489	411%
Providence	30	19, 492	650	32	19, 136	598	29	17, 848	615	30	17, 900	597	33	21, 627	655
NewportBristol and Warren	11 3	1. 592 125		14	1, 868 125	133 42	18 3	2, 411 125	134 42	20	2, 499 135	125 34	22 5	2, 69 1 171	122 34
Connecticut	148	36, 565	247	153	36, 400	238	156	37, 475	240	166	3 8, 732	233	168	38, 076	227
Stonington	11 38 18	2, 256 16, 221 4, 193	205 427 233	11 36 18	2, 256 16, 106 3, 887	205 447 216	10 37	1, 268 17, 567	127 475	7 40	1, 070 17, 866	153 447	8 38	736 17, 62 9	92 464
New HavenFairfield	48	8, 565 5, 330	178 1 62	48 40	8, 544 5, 607	178 140	48 40 21	8, 706 5, 972 3, 962	181 149 189	53 44 22	9, 514 6, 159 4, 123	180 140 187	52 50 20	8, 510 7, 696 3, 505	164 154 175
New York	1, 054	366, 487	348	1, 057	357, 364	338	1,077	371, 270	345	1, 100	372, 743	339	1, 099	375, 626	342
New York	1,028	364, 170	354	1,030	354, 991	345	1,049	100 010	351	1, 074	369, 794	344	1, 076	372, 896	347
Sag Harbor	26	2. 317	89	27	2, 373	, 88	28	368, 246 3, 024	108	26	2, 949	113	23	2, 730	119
New Jersey	105	13, 688	130	99	13, 380	135	102	13, 614	133	99	13, 048	132	104	18. 124	126
Newark	35	3, 303	94	34	3, 634	107	34	3, 761		34	3, 755	110	36	3, 486	97
Perth Amboy	44	7, 767 183	177	40 3	7, 298 177	182 59	42 1	7, 302 42	174 42	42	7, 215	172	· 46	7, 841 52	i 70 52
Great Egg Harbor	4 .	446	112	6	461	77	7	537	77	7	55 3	79	4 :	286	72
Bridgeton Burlington	7 12	828 1, 161	118 97	11	679 1, 131	13 6 103	6 12	809 1, 163	135 97	12	. 395 1, 130	99 - 94 -	13	395 1, 064	99 AC
Pennsylvania: Philadelphia	277	77, 414	279	206	74, 837	241	269	77, 070	287	264	74, 208	281	270 .	73, 195	271
Delaware: Delaware	26	5, 099	196	26	4, 061	156	27	3, 547	131	30	4, 207	140	31	3, 968	128
Maryland		53, 370	308	170	54, 434	320	162	53, 828	332	162	55, 767	344	169	57, 665	341
Baltimore	170	53, 195	313	165	54, 120	328	157	53, 468	341	158	55, 513	351	163	57, 221	351
AnnapolisEastern	1 2	106 69	106	1	106 208			106 254	106 64	4	254	64	6	444	.74
District of Columbia:	30	8, 580	286	31	8, 636	279	34	9, 054	266	36	8, 691	241	37	8, 745	236

TABLE 30.—AGGREGATES AND AVERAGES FOR THE 10 YEARS 1880-1889 (STEAMERS)—Continued.

· ·		1885			1886			1887			1888			1889	
CUSTOMS DISTRICTS.		Tonna	ge.	··· -·.	Tonna	ge.		Tonna	ge.		Топпа	ge.		Tonna	ge.
	Num- ber.	Total.	Aver- age.	Num- ber.	Total.	Aver-	Num- ber.	Total.	Average.	Num- ber.	Total.	Aver- age.	Num-	Total.	A v
rginia	101	8, 346	83	97	7, 815	81	99	8, 270	84	99	8, 137	82	116	10, 028	
Alexandria	14	622	44	10	447	45	10	428	43	10	428	43	11	495	- :
Tappahannock	. 3	170	57	3	170	57	. 5	304	61	5	304	61	5	804	
YorktownRichmond	3 15	148 1. 982	49 132	16	820 1, 027	205 64	4 15	812 1, 198	203 · 80 ·	.3	785 1, 304	262 - 82	17	1, 195	
Peteraburg	4	210	53	: 4	210	53	3	1, 196	55	16 2	1, 304	19	2	1, 1 9 3 37	
Norfolk and Portsmouth	58	4, 997	86	58	5, 005	86	- 59	5, 167	88	59	5, 021	85	70	6.098	
Cherrystone	4	217	54	2	136	68	3	196	65	4	258	65	7	706	ı :
orth Carolina	62	4, 739	76	58	4, 415	76	63	4, 630	. 73	72	5, 187	72	78	5, 539	:
Albemarle	26	2, 194	. 84	27	2, 305	85	27	2, 302	85	31	2, 461	79	33	2, 451	
Pamlico	16	912	57	16	919	57	19	1, 187	62	21	1, 266	; 60	23	1, 424	
Beaufort	4	197	49	. 2	99	50	.2	100	50	8	154	51		154	
Wilmington	16	1, 436	90	13	1, 092	84	15	1,041	69	17	1, 306	77	19	1, 510	
uth Carolina	52	6, 762	130	49	6, 229	. 127	56	6, 677	119	57	6, 703	118	59	6, 914	
Georgetown	12	853	71	14	972	69	12	860	72	13	974	75	14	1,017	. –
Charleston	34	5, 500	162	26	4, 637	178	33	5, 074	154	33	5,006	152	34	5, 222	
Beaufort	6	409	. 68	9 :	620	69	11	743	68	11	723	66	11 ,	675	
orgia	51	24, 024	471	49	23, 827	486	50	23, 403	468	53	23, 633	446	61	25, 728	:
Savannah	36 .	22, 652	629	34	22, 455	660	32	21, 687	678	34	21, 458	631	34	22, 018	
Brunswick	14	1, 338	96	14	1, 338	96	17	1,682	99	18	2, 141	119	25	3, 653	
St. Mary	1	34	34	1	84	34	1	34	34	. 1	34	84	2	52	;
orıda	110	11, 568	105	115	12, 430	108	108	12, 239	113	122	12, 282	101	122	9, 986	į
Fernandina	3	389	130	3	389	130	1	67	67	. 1	67	67	2	181	
St. JohnSt. Augustine	50 3	3, 574 276	71	52	4, 258 276	82	41	4. 812	117	47	5, 204	111	45	4, 085	
Key West	15	8, 65 8	92 244	. 17;	4, 005	92 236	3 19	272 3, 553	91 187	8 22	391 3, 269	49 149	8 9	194 1, 667	
St. Mark	. 9	919	102	10	72 2	72	10	734	73	8	403	50	8	372	
Apalachicola	. 12	1,309	109	11	1, 242	113	12	1,389	116	15	1,633	109	15	1, 883	
Pensacola Tampa	18	1, 443	80	19	1, 538	81	22	1, 412	64	21	1, 315	63	23 12	1, 411 69 3	i
sbams: Mobile		F #00													i
ssissippi:	49	5, 698	116	49	5, 824	119	53	6, 150	116	50 	5, 712	114	47	4, 913	1
Pearl River	9	861	96	9	861	96	8	814	102	7	684	98	12	1, 872	:
uisiana	82	34, 165	551	57	32, 9 13	577	55	3 0, 4 49	554	58	31, 062	536	49	30, 330	
New Orleans	30	32, 741	1 001	27	31, 567	1 100	23	29, 009	1. 261	23	28, 865	1. 255	21	90 454	
Teche	32	1, 424	45	30	1, 346	45	32	1, 440	1, 261 45	85	28, 805 2, 197	63	28	28, 454 1, 876	
×88	36	3, 297	92	39	5, 891	151	38	3, 658	96	39	3, 43 0	88	42	3, 584	!
Galveston	31	2, 865	92	34	5, 459	161	31	2, 801	90	82	2, 578	80	35	2, 728	-,
Corpus Christi	2	158	. 79	2	158	. 79	2	158	79	2	158	79	2	158	ì
	3	274	91	3	274	91	3	274	91	3	274	91	3	274	

TABLE 31.—AGGREGATES AND AVERAGES FOR THE 10 YEARS 1880-1889 (SAILING VESSELS)—NUMBER, AGGREGATE TONNAGE, AND AVERAGE TONNAGE OF ALL SAILING VESSELS REGISTERED IN THE CUSTOMS DISTRICTS OF THE ATLANTIC COAST AND GULF OF MEXICO DURING THE 10 YEARS 1880-1889.

		1880	ļ		1881	*		1882			1888			1884	
CUSTOMS DISTRICTS.		Tonna	ge.	Num	Tonna	ge.	Num-	Tonna	ge.	Num	Tonna	ge.	Num-	Tonna	ge.
•	Num- ber.		Average.	ber.	Total.	Aver-	ber.	Total.	Average.	ber.	Total.	Aver-	ber.	Total.	A ver
Total	14, 609	1, 912, 800	131	14, 576	1, 884, 739	129	14, 593	1, 876, 736	129	14, 500	1, 889, 438	130	14, 489	1, 918, 006	13
Mai ne	2, 556	491, 348	192	2,471	487, 222	197	2, 494	507, 819	204	2, 504	513, 864	205	2, 462	519, 749	21
Passamaquoddy		18, 803 19, 190 14, 817 19, 057 26, 129	101 112 61 60 156	179 151 241 310 152	17, 676 14, 414 15, 000 18, 845 24, 829	95	176 162 240 292 160	17, 803 14, 325 14, 457 16, 778 26, 095	101 88 60 57 163	179 176 244 269 159	17, 075 16, 647 14, 499 16, 170 24, 942	95 59 60	171 187 231 251 170	15, 557 20, 792 14, 579 14, 113 26, 719	11 12
Belfast	411 161	46, 967 82, 871 9, 713 132, 768	201 202 60 529	228 394 155 246	45, 927 82, 652 8, 584 137, 373	201 210 55 558	234 403 147 260	49, 213 90, 067 7, 956 151, 621	210 223 54 563	241 403 148 266	48, 308 92, 661 7, 600 160, 443	230 51	248 368 150 265	51, 520 83, 533 7, 326 168, 631	20
Portland and Falmouth Saco	16 43	111, 499 550 8, 673 311	322 34 202 35	347 17 39 12	111, 536 1, 454 8, 559 373	321 86 219 31	351 . 18 39 12	108, 915 1, 624 8, 614 351	310 90 221 29	356 16 36 11	108, 295 2, 017 4, 864 343	126 135	357 14 38 12	108, 393 2, 273 5, 917 396	16
New Hampshire: Portsmouth	69	9, 482	137	67	9, 592	143	58	8, 791	152	. 58	8,649	149	63	10, 196	16
Massachusetts	2, 136	378, 333	177	2, 078	364, 933	176	2, 081	374, 598	180	2, 043	373, 705	183	1, 957	373, 025	19
Newburyport Gloucester Salem and Beverly Marblehead Boston and Charlestown	51 472 64 61 719	12. 328 28, 122 5, 840 2, 419 237, 882	242 60 91 40 331	463 61 52 715	11, 583 27, 182 5, 395 1, 775 227, 638	252 59 •88 34 318	44 473 61 56 733	10, 809 27, 685 5, 247 1, 947 237, 122	246 59 86 35 323	53 497 45 48 677	17, 430 31, 162 4, 017 2, 540 224, 730	63 89 53	54 495 38 42 657	17, 907 31, 693 1, 741 2, 777 227, 456	33 4 6 34
Plymouth Barnstable Nautucket Edgartown Now Bedford Fall Rjver	339 12 24 250	2, 499 30, 068 226 1, 540 41, 875 15, 536	51 89 19 64 168 164	46 315 13 24 245 98	2. 119 27, 817 279 1, 895 40, 923 18, 327	46 88 21 79 167 187	39 322 13 23 220 97	1, 912 30, 171 243 1, 439 39, 460 18, 563	49 94 19 63 179 191	331 15 24 220 89	2, 357 32, 729 314 1, 362 38, 442 18, 622	21 57 175	45 312 17 26 196 75	2, 408 30, 936 475 1, 572 34, 659 21, 401	17
Rhode Island	241	16, 588	69	248	. 17, 048	69	255	19, 900	78	233	18, 305	79	232	19, 812	8
Providence Newport Bristol and Warren		12, 112 3, 303 1, 173	127 27 51	104 119 25	12, 236 3, 188 1, 624	118 27 65	115 113 27	15, 104 3, 044 1, 752	131 27 65	109 97 27	14, 426 2, 840 1, 039		105 100 27	14, 415 3, 724 1, 673	13
Connecticut	641	44, 299	69	635	44, 878	71	; 59 5	41, 130	69	551	40, 776	74	538	46, 720	_ 6
Stonington New London Middletown New Haven Fairfield	160 77 137	6, 640 8, 609 7, 508 14, 556 6, 986	58 54 98 106 46	109 154 70 146 156	7, 076 8, 761 6, 799 15, 946 6, 296	65 57 97 109			70 57 96 107 36	87 129 60 130 145	5, 120 8, 289 6, 043 16, 144 5, 171	64 101 124	91 131 59 115 142	5, 089 12, 272 6, 274 17, 743 5, 342	10 15 3
New York	2, 754	560, 556	204	2, 759	545, 282	198	2, 679	530, 150	198	2, 671	516, 599	193	2,709	523, 123	19
New YorkSag Harbor		548, 187 12, 369	220 48	2, 499 260	532, 989 12, 293	213 47	2, 444 235	518, 693 11, 457	212 49	2, 451 220	505, 560 11, 039	206 50	2, 488 221	512, 401 10, 722	20 4
New Jersey	906	58, 123	64	923	61,592	67	953	60, 025	63	977	6 0, 156	62	945	61, 125	
Newark Perth Amboy Little Egg Harbor Great Egg Harbor Bridgeton Burlington	71 125 311	2, 508 15, 849 5, 416 14, 823 18, 004 3, 523	76	335	1,508 17,560 5,070 16,483 17,545 3,426	54 56 77 -126 52 73	27 345 64 136 337 44	1, 531 16, 425 4, 652 16, 604 17, 610 3, 203	57 48 73 122 52 73		2, 644 17, 799 4, 597 14, 348 17, 533 3, 235	50 73 116 50	44 289 59 133 373 47	3, 859 14, 481 4, 348 17, 449 17, 718 3, 270	13
Pennsylvania: Philadelphia	643	132, 089	205	637	133, 967	210	5×7	125, 179	213	582	137, 270	· . 236	574	138, 731	21
Delaware	159	12, 128	76	153	11, 950	78	144	12, 304	85	156	13, 744	88	157	13, 648	
Maryland	1, 645	81, 856	50	1, 6 95	80, 254	47	1,766	77, 301	44	1, 823	80, 500	44	1, 986	86, 562	4
Baltimore	118	62, 993 2, 262 16, 601	72 19 25	902 120 673	61, 031 2, 273 16, 950	68 19 25	937 120 709	56, 908 2, 273 18, 120	26	951 121 751	58, 912 2, 503 19, 085	21	1, 008 162 818	63, 267 3, 249 20, 046	2
District of Columbia: Georgetown	: ! 58	1, 920	33	50	1,568	31	49	2, 290	i . 47	49	2. 340	48	51	3.066	

TABLE 31.—AGGREGATES AND AVERAGES FOR THE 10 YEARS 1880-1889 (SAILING VESSELS)—Continued.

Virginia 1,061 Alexandria 87 Tappahannock 100 Yorktown 141 Richmond 21 Petershurg 1 Norfolk and Portsmouth 353 Cherrystone 358 Jorth Carolina 289 Albemarle 55 Pamileo 100 Beaufort 70 Wilmington 64 outh Carolina 173 Georgetown 5 Charleston 151 Beaufort 17 Forgia 86 Savannah 54 Brunawick 23 St. Mary 4 Vorida 323 Fernandina 17 St. Augustine 1 Key West 141 St. Mark 23 Apalachicoln 25 Pensacola 98 Llabama: 1 Wobile 73 Liasissippi: <th>Tonna, 26, 640 3, 191 2, 418 2, 393 3, 515 16 9, 827 5, 280 9, 158 938 2, 245 1, 096</th> <th>A ver- age. 25 37 24 17 167 16 28 15</th> <th>Num- ber. 1, 092 88 126 135 37 1 367 37 38</th> <th>Tonna, Total. 25, 291 2, 872 2, 751 1, 994 3, 768</th> <th>A ver- age. 23</th> <th>Number.</th> <th>Tonna, Total.</th> <th>Average.</th> <th>Num- ber.</th> <th>Tonna, Total. 29, 887</th> <th>Average.</th> <th>Num- ber.</th> <th>Tonna, Total.</th> <th>Av</th>	Tonna, 26, 640 3, 191 2, 418 2, 393 3, 515 16 9, 827 5, 280 9, 158 938 2, 245 1, 096	A ver- age. 25 37 24 17 167 16 28 15	Num- ber. 1, 092 88 126 135 37 1 367 37 38	Tonna, Total. 25, 291 2, 872 2, 751 1, 994 3, 768	A ver- age. 23	Number.	Tonna, Total.	Average.	Num- ber.	Tonna, Total. 29, 887	Average.	Num- ber.	Tonna, Total.	Av
Seven Seve	26, 640 3, 191 2, 418 2, 393 3, 515 16 9, 827 5, 280 9, 158 938 2, 245 1, 096	25 37 24 17 167 16 28 15	1, 092 88 126 135 37 1 367	25, 291 2, 872 2, 751 1, 994 3, 768	23 33 22	1, 152	28, 610	age.	ber.		age.	ber.		ag
Alexandria	3, 191 2, 418 2, 393 3, 515 16 9, 827 5, 280 9, 158 938 2, 245 1, 096	37 24 17 167 16 28 15	88 126 135 37 1 367	2, 872 2, 751 1, 994 3, 768	33 22	75		25	1, 126	29, 887	27	1, 078	32, 558	·: -
Tappahannock	2, 418 2, 393 3, 515 16 9, 827 5, 280 9, 158 938 2, 245 1, 096	24 17 167 16 28 15	126 135 37 1 367	2, 751 1, 994 3, 768	22			1					,	
Tappahannock	2, 418 2, 393 3, 515 16 9, 827 5, 280 9, 158 938 2, 245 1, 096	24 17 167 16 28 15	126 135 37 1 367	2, 751 1, 994 3, 768	22		2, 955	39	72	3, 044	42	74	5, 386	
Yorktown	9, 515 9, 827 5, 280 9, 158 938 2, 245 1, 096	167 16 28 15	37 1 367	1, 994 3, 768		135	2, 951	22	117	2, 967	25	128	3, 151	
Richmond	9, 827 5, 280 9, 158 938 2, 245 1, 096	16 28 15	367		15	131	2, 103	16	201	3, 199	16	216	3,880	
Norfolk and Portsmouth 353 Cherrystone 358 Cherrystone 358 Cherrystone 358 Cherrystone 289 Albemarle 55 Pamilio 100 Reaufort 70 Wilmington 64 Pouth Carolina 173 Georgetown 5 Charleston 151 Beaufort 17 Borgia 86 Savannah 54 Brunswick 228 St. Mary 4 Iorida 323 Fernandina 17 St. John 18 St. Augustine 1 Key West 141 St. Mark 22 Apalachicola 25 Pensacola 98 Labama Mobile 73 Lississippi 19 Pearl River 119	9, 827 5, 280 9, 158 938 2, 245 1, 096	28 15	367		102	37 i	4, 250	115	45	5, 371	119	45	5, 817	
Cherrystone 358 Orth Carolina 289 Albemarle 55 Pamilon 100 Beaufort 70 Wilmington 64 ruth Carolina 173 Georgetown 5 Charleston 151 Beaufort 17 Borgia 86 Savannah 54 Brunswick 28 St. Mary 4 orida 323 Fernandina 17 St. Augustino 1 Key West 141 St. Augustino 1 Key West 141 St. Apalachicola 25 Pensacola 98 labama: Mobile 73 lasissippi: Pearl River 119	9, 158 938 2, 245 1, 096	15		190	190	3	262	87	1 !	13	13	1	7	1
Albemarle 55 Pamilon 100 Beaufort 70 Wilmington 64 with Carolina 173 Georgetown 5 Charleston 151 Beaufort 17 Borgia 86 Savannah 54 Brunswick 28 St. Mary 4 orida 323 Fernandina 17 St. Augustino 1 Key West 141 St. Mark 23 Apalachicola 98 labama: Mobile 73 lasissippi: Pearl River 119	9, 158 938 2, 245 1, 096		338	8, 647	24	411	10, 571	26	347	9, 952	29	331	9, 744	
Albemarle. 55 Pamilico 100 Beaufort 70 Wilmington 64 uth Carolina 173 Georgetown 5 Charleston 151 Beaufort 177 sorgia 86 Savannah 54 Brunawick 28 St. Mary 4 orida 323 Fernandina 17 St. John 18 St. Augustine 1 Key West 141 Key West 141 St. Mark 22 Apalachicola 25 Pensacola 98 labama: Mobile 73 lasissippi: Pearl River 119	938 2, 245 1, 096	20 1		5, 069	15	360	5,518	15	843 ;	5, 311	16	283	4, 573	!
Pamilion 100 Beaufort 70 Wilmington 64 with Carolina 173 Georgetown 5 Charleston 151 Beaufort 17 Borgia 86 Savannah 54 Brunswick 22 St. Mary 4 dorida 323 Fernandina 17 St. John 18 St. Augustino 1 Key West 141 Key West 141 St. Mark 23 Apalachicola 25 Pensacola 98 labama: Mobile 73 ississippi: Pearl River 119	2, 245 1, 0 9 6	02	298	11, 731	39	280	8, 654	31	285	10, 087	35	290	11, 753	;
Beaufort	1,096	17	51	954	19	47	861	18	39	617	16	42	646	!-
Wilmington 64 with Carolina 173 Georgetown 5 Charleston 151 Beaufort 17 sorgia 86 Savannah 54 Brunswick 28 St. Mary 4 orida 323 Fernandina 17 St. John 18 St. Augustine 1 Key West 141 St. Mark 23 Apalachicola 25 Pensacola 98 Isabama: Mobile 73 isaissippi: 119		22	107	2, 243	21	106	2, 172	20	111	2, 522	23		2, 104	
Georgetown 5 Charleston 151 Beaufort 17 Sorgia 86 Savannah 54 Brunswick 28 St. Mary 4 orida 323 Fernandina 17 St. John 18 St. Augustino 1 Key West 141 St. Mark 23 Apalachicola 25 Pensacola 98 isaissippi: Poarl River 119		16	65	1, 059	16	67	1, 158	17	72	1, 214	17	84	1, 462	1
Georgetown 5 Charleston 151 Beaufort 117	4, 879	76	75	7, 475	100	60	4, 463	74	63 :	5, 734	91	63	7, 543	i
Charleston 151 Beaufort 17 Borgia 86 Savannah 54 Brunswick 28 St. Mary 4 Iorida 323 Fernandina 17 St. John 18 St. Augustine 1 Key West 141 St. Mark 23 Apalachicola 25 Pensacola 98 labama: Mobile 73 ississippi: 19 Pearl River 119	5, 017	29	178	5, 241	29	182	5, 703	31	174	7, 198	41	171	5, 493	i L
Charleston 151 Beaufort 17 Borgia 86 Savannah 54 Brunswick 28 St. Mary 4 Iorida 323 Fernandina 17 St. John 18 St. Augustine 1 Key West 141 St. Mark 23 Apalachicola 25 Pensacola 98 labama: Mobile 73 ississippi: 19 Pearl River 119	389	78	3 :	375	125	7	742	106	9	1,511	168	10	1, 547	1
Beaufort	4, 126	27	156	3, 977	25	158	4, 314	27	144 !	4, 147	29	144	2, 885	!
Savannah	502	30	19	889	47	17	647	38	21	1,540	73	17	1,061	
Brunswick 28 St. Mary 4	9, 354	109	95	10, 398	109	82 '	9, 976	122	78	13, 035	167	87	16, 094	'
Brunswick 28 St. Mary 4	3, 806	70	61	4, 867	80	54	4, 906	91	48	5, 071	106	46	5, 498	7
St. Mary	4, 320	154	33	5, 524	167	26	4, 675	180	29		274	38		1
Fernandina	1, 228	307	1	3. 324 7	7	20	395	198	1	7, 95 7	7 7	3	9, 899 607	i
Fernandina	25, 332	78	310	20, 630	67	333	20, 175	61	355	24, 177	68	355	22, 918	
8t. John 18 8t. Augustine 1 Key West 141 8t. Mark 23 Apalachicola 25 Pensacola 98 labama: 73 ississippi: Pearl River 119	<u>'</u>	: "1												٠
St. Augustine	4, 914	289	17	3, 908	230	17	3, 531	208	14	2, 845	203	15	3, 370	i
Key West 141 St. Mark 23 Apalachicola 25 Pensacola 98 labama: 73 Mobile 73 lasissippi: 119 Pearl River 119	2, 421	135	19	1,942	102	22	2, 404	109	20	2, 891	145	12	522	i
St. Mark 23 Apalachicola 25 Pensacola 98 abama	33	33 · 27	124	16	23 25	4 '	67	17	140	257	64	100	301	1
Apalachicola 25 Pensacola 98 abama :	3, 839 1, 726	. 75	134 13	3, 388 1, 186	91	142 34	3, 500 2, 619	25 77	142	3, 369 2, 976	24 74	139 38	2, 6 80 , 931	۲
Pénsacola 98 abama: 73 Mobile 73 isafesippi: 119 Pearl River 119	1, 726	51	25	255	10	26	1, 210	47	24	1, 434	60	19	778	1
Mobile	11, 134	114	100	9, 90 5	99	88	6, 844	78	าถึ	10, 405	94	126	14, 336	ł
Poarl River 119	7, 937	109	80	9, 338	117	94	9, 228	98	99	7, 481	76	80	4, 521	
Poarl River 119			i		- 1			.			1			:
uisiana	2, 970	25	130	4,608	35	121	3, 745	31	121	5, 187	43	119	4, 297	ì
	31, 958	71	442 :	29, 057	66	452	24, 264	54	380	19, 849	52	411 ,	18, 195	İ
New Orleans 375	29, 928	- 80	378	27, 165	72	387	22, 499	58	324	18, 473	57	341	16, 506	i -
New Orleans 375 Toche 72	2, 030	28	64 j	1, 892	30	65	1, 765	27	56	1, 376	25	70	1, 689	;
230	7, 712	34	235	10, 159	43	236	6, 894	29	235	6, 629	28	224	6, 508	1
Galveston 154		37	159	7.865	49	154	4, 092	27	163	4, 876	30	151	4, 749	
Saluria 37	5, 749	23	31	772	25	29	732	25	27	696	26	29	548	
Corpus Christi		32 21	34 11	1, 241 281	37 26	42 11	1, 796 274	43 25	36 9	814 243	23 27	32 12	753 458	i i

TABLE 81.—AGGREGATES AND AVERAGES FOR THE 10 YEARS 1880-1889 (SAILING VESSELS)—Continued.

		1885			1886		!	1887			1888			1889	
CUSTOMS DISTRICTS.	Num- ber.		ge.	Num- ber.	Tonna	ge.	Num- ber.	Tonna	ge.	Num- ber.	Tonna	ge. — Aver	Num- ber.	Tonna	ge. Aver
1		Total.	age.	<u>:</u>	Total.	age.		Total.	age.	i	Total.	age.	İ	Total.	a ge.
Total	14.354	1, 860, 058	130	13, 937	1, 742, 766	125	13, 652	1, 665, 070	122	13, 459	1, 584, 309	118	13, 336	1, 525, 315	114
Maine	2, 356	464, 510	197	2, 271	434, 824	191	2, 127	392, 025	184	2, 088	376, 441	180	1,968	341, 693	174
Passamaquoddy	162	14, 661	91	162	14, 742	91	149	13, 155		159	14, 907	94	144	14, 545	101
Machias Frenchman Bay Castine Bangor	191 221 250 155	19, 096 13, 702 14, 458 22, 891	100 62 58 148	180 234 231 149	17, 763 15, 509 13, 024 20, 593	99 66 56 138	176 222 231 145	16, 395 13, 222 12, 738 20, 623	60 55	185 219 240 133	16, 283 13, 766 13, 582 20, 307	88 63 57 153	189 214 249 134	16, 511 14, 042 13, 588 22, 555	55 168
Belfast Waldoboro Wiscasset Bath	251 344 148 231	47, 591 75, 195 7, 105 141, 277	190 219 48 612	230 335 139 228	41, 263 69, 579 7, 511 136, 139	179 208 54 597	185 336 129 216	33, 424 69, 597 8, 267 124, 552	181 207 64 577	168 338 114 216	31, 237 60, 214 6, 845 125, 637	186 178 60 582	147 310 96 183	25, 433 50, 139 6, 178 101, 820	173 162 64 556
Portland and Falmouth Saco Kennebunk York	343 16 31 13	102, 610 2, 152 3, 357 415	299 135 108 32	326 16 31 10	93, 026 1, 960 3, 385 330	285 123 109 33	286 15 29 9	75, 208 , 1, 399 3, 142 303	93	267 14 26 9	69, 294 1, 079 2, 955 335	260 77 114 37	265 9 23 5	73, 193 643 2, 838 206	276 71 123 42
New Hampshire: Portsmouth	59	10, 502	178	58	10, 033	173	58	10, 047	173	56	9, 731	. 174	55	9, 657	176
Massachusetts	1, 902	370, 925	195	1, 834	361, 794	197	1,718	341, 769	199	1, 695	337, 101	199	1, 621	306, 749	189
Newburyport Gloucester Salem and Beverly Marblehead Boston and Charlestown	46 504 36 42 627	16, 169 33, 734 1, 913 2, 963 225, 635		48 486 34 39 598	15, 585 32, 955 2, 149 2, 855 219, 022	325 68 63 73 366	25 472 45 33 532	12, 265 32, 322 4, 575 2, 304 202, 488	491 68 102 70 381	25 460 38 31 551	11, 771 32, 395 4, 110 2, 909 201, 671	471 70 108 94 366	17 453 32 25 542	8, 53 6 33, 281 2, 56 0 2, 122 186, 9 08	362 73 80 85 345
Plymouth Barnstable Nantucket Edgartown	34 305 17 23	1, 694 29, 609 410 1, 235	50 97 24 54	30 306 15 20	1, 356 28, 862 463 981	45 94 31 49	24 296 15 20	1, 209 27, 835 458 986	31 49	19 281 19 31	956 24, 706 488 935	50 88 26 30	18 273 20 33	1, 0 26 21, 503 435 1, 300	
New Bedford. Fall River	1 97 71	34, 110 23, 453	173 330	188 70	33, 092 24, 474	176 350	182 74	32, 374 24, 953	178 3 3 7	172 68	31, 012 26, 148	18 ⁹ 385	150 58	27, 226 21, 843	182 377
Rhode Island	226	18, 577	82	214	17, 293	81	189	15, 476	82	189	15, 148	80	190	14, 461	76
Providence Newport Bristol and Warren	97 101 28	13, 389 3, 802 1, 386	138 38 50	97 90 27	12, 464 3, 500 1, 329	128 39 49	77 88 24	10, 599 3, 634 1, 243	138 41 52	75 90 24	9, 759 4, 109 1, 280	130 46 53	72 96 22	8, 590 4, 730 1, 141	119 49 52
Connecticut	522	45, 960	88	504	47, 418	94	488	49, 368	101	483	54. 212	112	457	52, 277	114
Stonington New London Middletown	98 123 56	4, 413 11, 821 5, 938	45 96 106	94 121 56	4. 192 12, 360 6, 068	45 102 108	96 124	4, 244 13, 565	44 109	102 119	4, 412 15, 058	43 127 94	102 114	3, 968 15, 607	39 137
Hartford New Haven Fairfield	110 135	18, 080 5, 70 8	164 42	103 130	19, 229 5, 569	187 43	45 98 125	4, 801 21, 560 5, 198	107 220 42	103 119	3, 744 25, 271 5, 727	245 48	92 110	3, 465 23, 951 5, 266	200 48
New York	2. 651	525, 470	198	2. 454	459, 990	187	2, 441	453, 686	186	2, 329	409, 455	176	2, 361	430, 645	182
New YorkSag Harbor	2, 437 214	513, 908 11, 562	211 54	2, 250 204	449, 223 10, 767	200 53	2, 230 211	442; 840 10, 846	1 99 51	2, 112 217	400, 191 9, 264	189 43	2, 167 194	422, 664 7, 961	195 ▲1
New Jersey	924	61, 491	67	958	59, 949	63	942	59, 358	63	979	58, 346	60	997	57. 547	5
Newark Perth Amboy Little Rgg Harbor Great Egg Harbor Bridgeton	31 282 59 129 392	2, 046 14, 988 4, 294 17, 458 20, 259	53 73 135 52	127 426	3, 134 14, 490 3, 950 16, 327 19, 601	85 51 79 129 46	39 279 47 132 421	2, 905 15, 205 3, 905 16, 787 18, 901	74 55 83 127 45	34 293 43 151 434	2, 757 14, 512 2, 993 17, 227 19, 141	81 50 70 114 44	34 307 42 165 425	2, 894 14, 688 2, 679 17, 837 17, 767	-
Burlington Pennsylvania : Philadelphia	31 533	2, 446 132, 328	79 248	32 526	2, 447 143, 162	76 272	24 · 524	1, 595 129, 867	248	24 501	1, 716 125, 316	72 250	24 484	1, 682 118, 695	-
Delaware: Delaware	160	14, 847	93	149	12, 670	85	161	12, 835	80	172	13, 409	78	164	15, 1 42	
Maryland	2, 098	91, 261	43	2, 054	88, 240	43	2, 056	84, 648	41	1,988	82, 424	41	2,010	76, 744	
Baltimore	1, 083 159 856	68, 090 3, 068 20, 103	63 19 23	1, 058 129 867	66, 001 2, 832 19, 407	62 22 22	1, 034 148 874	62, 517 3, 109 19, 022	60 21 22	997 144 847	61, 346 3, 115 17, 963	62 22 21	990 154 866		
District of Columbia: Georgetown	41	1, 099	2 7 .	35	937	27	41	1, 301	32	47	2, 283	49	71	2, 996	4

TABLE 31.—AGGREGATES AND AVERAGES FOR THE 10 YEARS 1880—1889 (SAILING VESSELS)—Continued.

į		1885	:	!	1886			1887			1888			1889	
CUSTOMS DISTRICTS.		Tonnag	çe.		Tonna	ge.	:	Tonna	ge.		Tonna	ge.	1	Tonna	
İ	Num- ber.	Total.	A ver-	Num- ber.	Total.	Aver- age.	Num- ber.	Total.	Aver-	Num- ber.	Total.	Aver-	Num- ber.	Total.	Ave
				!		ļ									,
irginia	1, 135	37, 442	33	1, 167	34, 442	:.0	1. 189	35, 435	30	1, 207	32, 982	27	1, 212	32, 699	2
Alexandria	70	4, 960	71	66	4, 457	68	56	3, 140	56	62	3, 892	63	63	1,574	
Tappahannock	145	3, 846	27	143	3, 883	27	140	3, 608	26	134	3, 429	26	139	3, 620	
YorktownRichmond	211 1 48	3, 582 8, 035	17 167	200 42	3, 469 5, 614	17 134	219 47	5, 997 4, 845	27 103	219 50	5, 732 5, 472	26 109	209 47	5, 091 3, 902	
Petersburg	ž	19	10	4	45	11	3	30	10	3	30	. 10	3	30	1 .
Norfolk and Portsmouth	350	12, 020	34	367	11,372	31	379	12, 209	32	385	8, 620	22	396	12, 878	
Cherrystone	309	4, 980	16	336	5, 602	. 17	345	5, 696	17	354	5, 807	16	355	5. 604	1 :
orth Carolina	258	10, 167	35	273	8, 275	30	285	8, 100	28	298	8, 017	27	320	7, 412	_ 2
Albemarle	102	660 1, 973	14 19	44 98	578 1, 928	13 20	50 99	69G 1, 91G	14	51 105	682 2, 028	13 19	58	870 1, 961	
PamlicoBeaufort	83	1, 434	17	98 85	1, 928	20 18	99	1, 745		105	1, 750	17	109 121	2, 012	
Wilmington	59	6, 160	104	46	4, 271		37 j	3, 752		36	3, 557		32	2, 569	
outh Carolina	175	6. 045	25	157	5, 396	34	160	5, 860	37	163	4. 769	29	169	5, 234	:
Georgetown	11	1, 826	166	8	967	121	9	1, 203	134	11	1.700	155	10	1, 350	
Charleston	149	3, 919	26	134	3, 600	27	141	4. 148	32	135	2,713	20	140	3, 156	
Reaufort	15	300	20	15	829	55	10	209	21	17	356	21	19	728	:
eorgia	82	11, 807	144	82	8, 636	105	. 85 -	9, 148	108	. 80	6, 922	87	83	6,612	
Savannah	52	4, 509	87	56	3, 125	56	57	2, 119	37	54	2, 582	48	58	2, 161	3
Brunswick	28	6, 753	241	23	4, 628	201	26	6, 181	245	24	4, 022	168	24	4, 428	1
St. Mary	2	545	273	3	883	294	2	545	273	2	318	159	1	23	:
lorida	379	27, 920	74	376	21, 281	57	396	25, 117	63	408	20, 037	49	400	17, 632	
Fernandina	-14	3, 202	229	12	2, 920	243	13	3, 519	271	14	3, 975	284	12	2,939	2
St. Johu	24 5	2, 784 56	116	23	1, 935 56	81	19	2, 49 7 133	131	24	1, 739 187	72	27 15	1, 854 253	
St. Augustine Key West	139	3, 744	11 27	5 156	3, 846	11 23	167	3, 570	17 21	12 173	3.886	16 22	146	2, 505	
St. Mark	44	663	15	38	403	11	36	604	17	34	639	10	26	343	:
A palachicola	25	368	15	28	610	22	28	2, 264	81	27	1, 999	74	25	1, 632	:
Pensacola	128	17, 103	134	114	11, 511	101	125	12, 5:0	100	122	7, 612	62	124 25	7, 870 236	
Тапъра		•••••			· • • • • • • • • • • • • • • • • • • •			• • • • • • • • •			• • • • • • • • • • •		20	200	
Mabama: Mobile	82	4, 800	59	75	4, 833	64	63	3. 136	50	70	3, 8 69	55	77	4, 986	
fississippi :						1				:					
l'earl River	120	4, 535	38	142	5, 092	36	148	8, 697	59	150	6, 865	46	158	9, 268	
onisiana	409	15, 639	38	396	12, 767	32	:189	12. 575	32	377	11. 893	32	360	10, 365	
New Orleans	341	13, 863	41	325	11, 414	35	314	11, 233	. 36	302	10, 670	35	287	9. 169	
Teche	68	1,776	26	71	1, 353	19	75	1, 342	18	75	1, 223	16	73	1, 196	
Fexns	212	4, 733	2 2	212	5, 734	27	192	6, 613	34	181	5, 089	28	179	4, 501	:
Galveston	147	3, 572	24	151	4, 335	20	147	5, 414	37	142	4. 404	31	138	3, 800	
SaluriaCorpus Christi	26 ! 29	346 617	13 21	23 29	303 921	13 32	15 24	212 843	14 35	13 22	195 382	15 17	11 25 :	183 387	
COUNTRY CHEISU	20	017	20	29,	821	19	44 .	040	35 24	4	108	27	3	131	2

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COMPARATIVE STATISTICS—Continued.

TABLE 32.—AGGREGATES AND AVERAGES FOR THE 10 YEARS 1880-1889 (UNRIGGED CRAFT)—NUMBER, AGGREGATE TONNAGE, AND AVERAGE TONNAGE OF ALL UNRIGGED CRAFT REGISTERED IN THE CUSTOMS DISTRICTS OF THE ATLANTIC COAST AND GULF OF MEXICO DURING THE 10 YEARS 1880-1889.

1		1880	į	i	1881			1882	:		1888			1884	
CUSTOMS DISTRICTS.	Num-	Tonna	ge.	Num-	Tonna	ze.	Num-	Tonna	ge.	Num-	Tonna	ge.	Num-	Tonna	ge.
	ber.	Total.	Aver- age.	ber.	Total.	Aver-	3,00	Total.	Aver- age.	ber.	Total.	Aver-	ber.	Total.	Aver age.
Total	621	113, 247	181	619	123, 376	190	772	144, 586	187	772	150, 271	195	740	145, 826	197
Maine	2	406	203	2	406	203	3	073	324	3	973	324	2	718	33
Waldoboro	1	255 151	255 151	1 1	255 151	255 151	1 2	255 718	255 359	1 2	255 718	255 359	2	718	23
dassachusetts	11	3, 162	287	11	3, 573	325	11	3, 573	325	12	3, 995	333	11	3, 713	33
Newburyport	2 0	87 3, 075	44 342	2 9	87 3, 486	44 387	2 9	87 3 486	44 387	10	87 3, 908	44 391	2 9	87 3, 62 6	44
Connecticut	i 73 . I —	8, 396	115	85	11, 885	140	154	23, 214	151	179	27, 996	156	171	26, 861	_ 13
New London Middletown New Haven Fairfield	3 4 64 2	289 641 7, 160 306	96 160 112 153	7 14 63	1, 184 2, 937 7, 616 148	169 210 121 148	10 19 124 1	2, 033 3, 853 17, 180 148	203 203 139 148	17 20 140 2	4, 012 4, 008 19, 660 226	236 205 140 113	15 19 135 2	3, 893 3, 789 18, 953 226	19 16 16
Vew York	405	81, 705	202	411	83, 837	204	435	87, 107	.200	443	88, 384	200	455	91, 497	2
New York	402 3	79, 196 2, 569	197 856	408	81, 268 2, 569	199 856	432	84, 538 2, 569	196 850	441 2	86, 446 1, 938	196 969	454 1	90, 716 781	7
New Jersey	68	11, 690	172	8)	15, 807	198	106	21, 204	200	89	21, 381	240	48	14, 047	290
Perth AmboyBurlington	61	10, 661 1, 029	175 147	73 7	14, 778 1, 029	202 147	99 7	20, 175 1, 029	204 147	82 7	20, 352 1, 029	248 147	48	14, 047	25
Pennsylvania: Philadelphia	29	4, 822	166	20	5, 264	175	29	5, 216	180	29	5, 216.	180	31	6, 100	: 15
Delaware: Delaware	2	117	59		· • • • • • • • • • • • • • • • • • • •		2	596	298			! !		• • • • • • • • • • • • • • • • • • • •	
faryland	4	423	106	3	249	83	3	249	83	. 4	1, 177	294	8	1,812	22
Baltimore	4	423	106	3	249	83	3	249	83	4	1, 177	294	8	1, 812	27
irginia	3	199	66	. 2	156	78	. 2	156	78			<u> </u>			
YorktownRichmond	1 2	43 156	43 78	2	156	78	2	156	78						·
South Carolina: Beaufort	1	51	51									. 		. .	
Mobile	4	349	87	4	349	87	4	174	44	10	414	41	10	. 414	,
fississippi: Pearl River	18	1, 180	66	19	1, 263	66	19	1, 263	66	·			 	•••••	
Louisiaua:	2	100	50		; 		ļ			·		· · · · · · · · · · · · · · · · · · ·	, i	·····	
Cexas	2	587	294	2	587	294	4	861	215	3	735	245	4	664	
Galveston	2	587	294	2	587	294	4 1	861	215	3	735	245	2	441	

TABLE 39.—AGGREGATES AND AVERAGES FOR THE 10 YEARS 1880-1889 (UNRIGGED CRAFT)—Continued.

		1885			1886		 	1887		!	1888			1889	
CUSTOMS DISTRICTS.	Num-	Tonna	ge.	Num-	Tonna	ge.	Num-	Tonna	ge.	Num-	Tonna	ge.	Num-	Tonna	ge.
	ber.	Total.	Aver- age.	ber.	Total.	Average.	ber.	Total.	Aver- age.	ber.	Total.	Aver- age.	ber.	Total.	A ver age.
Total	746	148, 280	199	763	153, 380	201	697	156, 414	224	958	217, 616	227	1,000	231, 422	23
Maine	2	822	411	4	2, 272	568	8	4, 418	552	13	10, 292	702	12	10, 109	84
MachiasBangor	ļ		.				1 1	122 238	122 238	i	238	238	·····i	238	23
Waldoboro	1 1	255 567	255 567	4	2, 272	568	6	4, 058	676	12	10, 054	838	ii	9, 871	89
Massachusetts	. 10	2, 971	207	11	3, 751	341	15	8, 164	544	26	18, 977	730	33	23, 968	72
Newburyport	2	87	44		87	44		87		2	87	44	 . 2	87	4
Gloucester	 	ļ					4	4, 362	1,091	1 14	122 15, 053	122 1, 075	20	122 19, 610	12 98
Fall River	8	2, 884	361	9	8, 664	407	9	3, 715	413	19	3, 715	413	10	4, 149	41
Rhode Island: Providence	1		· ····	2	. 689	345	3	1, 046	349	3	1, 046	349	3	1,046	84
Connecticut	163	25, 895	159	161	25, 841	161	38	9, 059	238	163	26, 809	164	171	28, 950	16
Stonington New Loudon		3, 839	256	15	4, 002	267	17	4, 902	288	18	5, 207	289	1 20	482 5, 571	48 27
Middletown New Haven	20 126	3, 984 17, 846	142	21 124	4, 133 17, 558	197 142				121	16, 828	139	124	17, 984	14
Fairfield Hartford	2	226	.113	1	148	148	19	297 3, 860	149 203	20	570 4, 204	143 210	22	570 4, 343	14 19
New York	466	94, 188	202	477	95, 042	199	515	103, 270	201	621	126, 277	203	632	130, 237	20
New York	465 1	93, 467 781		476 1	94, 261 781	198 781	514 1	102, 489 781	199 781	620 1	125, 496 781	202 781	631 1	129, 455 782	20 78
New Jersey	48	13, 954	291	50	14, 409	288	54	16, 406	304	63	20, 463	325	71	21, 952	30
Perth Amboy Burlington	48	13, 954	291	50	14, 409	288	54	16, 406	304	63	20, 463	325	70 1	21, 802 150	81 15
Pennsylvania: Philadelphia	,	6, 693	209	33	7, 301	221	34	8, 513	250	31	7, 384	238	46	11, 137	24
Maryland	' 9	2, 208	245	9	2, 208	245	9	2, 207	245	17	3, 241	191	16	2, 338	14
Baltimore	j	2, 208	-1	9	2, 208	245	9	2, 207	245	17	3, 241	191	10	1, 391	13
Eastern		2, 208			2, 206		······	2, 201	245	·····			6	947	15
District of Columbia: Georgetown	1	508	508	1	508	508	2	742	371					· · · · · · · · · · · · · · · · · · ·	
Virginia	 	·		 			1	815	815	1	71	71	1	71	7
YorktownTappahannock							1	815	815	i	71	71	1	71	7
Georgia : Savannah		! 	.	I						2	1, 177	589	1	9	
Florida: St. Mark				: :			1	32	32						
Alabama: Mobile	11	460	42	8	326	41	9	538	60	9	538	60	6	413	
Техан	4	590	148	7	1, 033	148	8	1, 204	151	9	1,341	149	8	1, 192	14
GalvestonCorpus Christi	2 2	367 223		5 2	810 223	162 112	6 2	981 223	164 112	6 2	981 223	164 112	5 2	833 223	16
Paso del Norte		623	112		443		l	223	112	1 1	137	137	1	136	

TABLE 33.—TONNAGE FLUCTUATIONS FOR THE 10 YEARS 1880-1889 (ALL VESSELS)—AVERAGE ANNUAL NUMBER AND AVERAGE ANNUAL TONNAGE OF ALL VESSELS REGISTERED IN THE CUSTOMS DISTRICTS OF THE ATLANTIC COAST AND GULF OF MEXICO DURING THE 10 YEARS 1880-1889, WITH THE YEARS OF HIGHEST, LOWEST, AND MEAN REGISTRATION.

CUSTOMS DISTRICTS.	Annual average number of vessels	AB	HEST OVE BAGE.	BEI	VEST LOW RAGE.		SAGE.	Fluctu- ation.	Annual average regis-	: AV	EST ABOVE ERAGE.		ST BELOW ERAGE.		BEST TO ERAGE.	Finctu-
	regis- tered.	Year.	Num- ber.	Υear.	Num- ber.	Year.	Num- ber.	acion.	tered ton- nage.	Year.	Number of tons.	Year.	Number of tons.	Year.	Number of tons.	1
Maine:															I	
Passamaquoddy	180 182	1880 1885	197 196	1889 1881	157 155	1885 1883	180 181	40 41	20, 212 17, 265	1880 1884	23, 510 20, 952	1887 1882	17, 802 14, 400	1883 1883	20, 291 16, 737	5, 708 6, 552
Frenchman Bay	237	1883 1880	250 319	1889 1887	226 233	1884 1883	236 270	24 86	14, 667 15, 267	1886 1880	16,003 19,082	1887 1887	13, 743 12, 768	1884 1885	14, 704 14, 483	2.20 6,314
Bangor		1884	182	1888	144	1886	161	38	24, 362	1884	27, 525	1888	21, 281	1889	23, 895	6, 214
Belfast	219	1885	255	1889	148	1881	230	107	42, 197	1884	51, 677	1889	25, 468	1886	41, 355	26, 209
Waldoboro	370 141	1880 1860	421 164	1889 1889	316	1884	372 141	105 67	76, 703 7, 807	1883 1880	93, 709 9, 851	1889 1889	50, 987 6, 228	1885 1883	76, 588 7, 684	42.722 3.623
Bath	268	1884	299	1889	224	1881	272	75	144, 818	1884	173, 749	1889	117, 415	1885	145, 374	56, 334
Portland and Falmouth	355	1884	387	1889	301	1886	365	86	105, 833	1884	119, 900	1888	79, 865 655	1886 1887	105, 306	40, 035
Saco Kennebunk	18 34	1882 1880	21 43	1889 1889	11 24	1880 1886	18 32	10 19	1, 721 5, 239	1884 1880	2, 504 8, 673	1880 1880	2,864	1883	1,597 4,864	1.849
York	10	1885	13	1889	5	1886	10	8 .	337	1885	415	1869	208	1888	335	207
New Hampshire: Portsmouth	67	1880	74	1889	63	1883	66	11	10, 017	1885	10, 891	1882	9,045	1889	10, 057	1, 846
Massachusetts: Newburyport	57	1884	. 72	1889	28	1882	61	44	14, 322	1884	18, 910	1889	9, 091	1880	13, 188	9.819
Gloucester	484	1885 1880	510 68	1889 1889	462 36	1887 1883	479 48	48 32	31, 273 3, 917	1885 1880	33, 943 6, 651	1881 1884	27, 302 1, 772	1883 1883	31, 342 4, 060	6, 641 4, 879
Marblehead	44	1880	61	1389	28	1885	44	33	2, 491	1885	3, 036	1881	1, 791	1883	2, 540	1, 245
Boston and Charlestown	742	1882	835	1887	628	1885	723 ·	207	261, 030	1885	267, 805	1887	249, 864	1883	261, 424	17, 941
Plymouth	36 309	1880 1880	51 340	1889 1889	19 275	1885 1886	35 307	32 65	2, 055 28, 458	1880 1883	2, 963 32, 736	1888 1889	1, 300 21, 617	1882 1886	2, 071 28, 908	1, 663 11, 119
NantucketEdgartown		. 1889 1889	20 34	1887 1886	15 20	1883 1881	17 25	5 14	1, 077 1, 328	1884 1881	1,537 1,906	1889 1888	435 935	1886 1889	1, 041 1, 325	1, 102 971
New BedfordFall River	215 109	1880 1881	265 125	1889 1889	162 89	1885 1884	209 106	103 36	38, 338 45, 495	1880 1888	44, 838 55, 064	1889 1880	31, 349 34, 663	1884	36, 979 44, 817	13, 489 18, 401
Rhode Island:	100	:	110	1003		1001	100	: 30	40, 400	1 2000	517, 004	10,70	02, 000	1000	71,021	20. 20.
Providence	126	1882	144	1888	108	1885	127	36	32, 882	1882	37, 544	1888	28, 705	1885	32, 881	8. 839
Bristol and Warren Newport		1882 1880	36 144	1887 1886	27 104	1880 1889	31 118	40	1, 549 5, 547	1882 1889	2,039 7,421	1883 1883	1, 224 4, 562	1885 1885	1, 511 5, 394	2. 859
Connecticut:			ļ				!							i		•
Stonington	10.) 184	1880 1880	124 200	1883 1886	99 172	1885 1882	109 185	25 28	6, 652 31, 043	1881 1889	8, 263 38, 807	1889 1880	5, 204 22, 232	1883 1885	6, 669 31, 881	3, 058 16, 37 5
Middletown	100	1880 1887	106	1885 1889	94	1883	. 99	12	14, 442	1881	15, 404	1880 1889	14, 066 11, 313	1882 1888	14, 501	1, 338 1, 310
New Haven	261	1883	312	1887	81 146	1882 1889	82 268	166	12, 002 40, 791	1887 1888	12, 62 3 51, 613	1880	28, 178	1882	12, 071 38, 550	23, 435
Fairfield	169	1882	176	1839	164	1881	170	12	10, 955	1889	13, 532	1862	9, 222	1885	11,264	4, 310
New York: New York	3, 837 253	1884 1881	3, 986 294	1880 1889	3, 721 218	1882 1883	3, 830 250	265 76	926, 129 14, 746	1885 1881	971, 485 17, 209	1888 1889	895, 481 11, 493	1889 1885	925, 015 14, 660	76, 004 5, 716
New Jersey:		1			:			i		İ						
Newark	68 425	1884 1882	. 79 517	1881 1885	58 374	1888 1889	68 423	21 14.3	5, 983 41, 198	1884 1882	7, 369 48, 648	1881 1886	4, 485 36, 197	1883 1888	6, 002 42, 190	2. 884 12. 451
Little Egg Harbor Great Egg Harbor	58 140	1880 1889	72 169	. 1888 1883	43 127	1884 1882	139	29 42	4, 301 16, 813	1880 1889	5, 583 18, 123	1889 1883	2,731 14,530	1884 1886	4, 396 16, 788	2, 852 3, 593
BridgetonBurlington	3×5 55	1000	438	1880 1887	314 36	1884	378 66	124	18, 607	1885	21,087	1880	16, 153 2, 758	1889 1884	18, 162 7, 526	6, 165
Pennsylvania:	33	1000	. 75	1001	30	1884	00	38 i	5, 800	1880	8, 923	1887	2, 136	1008	1,320	
Philadelphia	866	1880	941	1888	796	1885	842	145	213, 192	1886	225, 300	1889	203, 027	1887	215, 450	22.273
Delaware	183	1888	202	1882	165	1880	182	37	17, 645	1885	19, 946	1881	16, 09 0	1888	17, 616	3,858
Maryland: Baltimore	1, 147	1885	1, 262	1880	1,013	1889	1, 163	249	112, 709	1885	123, 49 3	1881	99, 739	1889	114, 037	23, 754
Annapolis Eastern	138 795	. 1884 1887	162 878	1880 1880	118 657	1888 1884	144 818	221	2, 836 18, 824	1889 1885	3, 309 20, 172	1880 1880	2, 262 16, 620	1886 1882	2, 938 18, 428	1, 047 8, 553
District of Columbia: Georgetown	. 84	1889	108	1886	67	1883	84	41	10, 437	1889	11,741	1880	8, 771	1882	10, 568	2,970
. '	•	. 1000	100	. 1000		1000	O.	**	10, 401	1008	11, 141	1000	G 11.2	. 1012	10,000	1
Virginia: Alexandria	83		100	1887	66	1883		34	4, 115	1884	5, 952	1889	2, 069	1880	3, 945	3, 883 1, 384
Tappahannock Yorktown	135 192	1885 1887	148 224	1880 1882	102 131	1881 1883	130 202	46 93	3, 517 4, 220	1886 1887	4, 053 7, 534	1880 1881	2, 669 1, 994	1884 1856	3, 243 4, 289	5,540
RichmondPetersburg	60 5	1888 1886	66	1880 1880	39 3	1882 1883	59 5	27	6, 695 179	1885 1882	10, 017 278	1880 1880	4, 657 47	188 6 1883	6, 641 175	5, 306 281
Norfolk and Portsmouth Cherrystone	430	1882 1882	478 362	1884 1884	397 285	1881 1881	426 338	81 77	1 - 000	1889 1889	18, 976 6, 310	1881 1884	13, 326. 4, 592	1882 1882	16, 041 5, 537	5, 650 1, 718
North Carolina:	041	1002	502		200	1001					5,010	1 20178	=, 000	ļ		
Albemarle		1889	91	1883	64	1880	76	27	2, 940	1889	3, 321	1883	2, 746 2, 629	1886	2. 883	573 825
Pamlico	119 87	1889 188 9	132 124	1880 1881	106 65	1882 1885	87	26 59	3, 056 1, 532	1883 1889	3, 454 2, 166	1880 1881	1,059	1882 1886	3, 033 1, 597	1,107
Wilmington	69	1881	89	1889	51	1885	75	38	6, 496	1884	9, 469	1889	4, 079	1882	6, 289	5,390
South Carolina: Georgetown	20	1888	. 24	1881	11	1864	21	13	1, 908	1885	2, 679	1881	595	1886	1, 939	2,084
Charlestown	177	1882	185	1886	160	1484	177		8. 920	1881	10, 057	1888	7, 719	1882	8, 572	2 338

TABLE 32.—TONNAGE FLUCTUATIONS FOR THE 10 YEARS 1880-1889 (ALL VESSELS)—Continued.

CUSTOMS DISTRICTS.	Annnal average number of	AB	HEST OVE RAGE.	BEI	VEST .OW RAGE.		EST TO	Fluctu-	Annual average regis-		EST ABOVE ERAGE.		ST BELOW ERAGE.		BEST TO ERAGE.	Fluctu
CUSIOMS DISTRICTS.	regis- tered.	Year.	Num- ber.	i Year.	Num- ber.	Year.	Num- ber.	ation.	terrd ton- nage.	Year.	Number of tons.	Year.	Number of tous.	Year.	Number of tons.	ation.
Georgia: Savannah Brunawick	84 43 4	1889 1884 1880	93 50 7	1880 1883 1881	72 37 3	1881 1887 1882	81 43 4	21 13	23, 394 7, 357 545	1884 1884 1880	27, 777 10, 832 1, 522	1880 1880 1889	14, 310 5, 286 75	1887 1881 1885	23, 806 6, 896 579	13, 467 5, 546 1, 447
Florida: Fornandina St. John St. Augustine Key West St. Mark Apalachicola Pensacola Tampa	17 58 9 162 41 36 133 37	1881 1886 1889 1888 1885 1888	20 75 23 195 53 42 147	1887 1884 1880 1881 1881 1884 1882	14 12 2 143 20 30 107	1884 1882 1885 1889 1882 1882 1886 1889	17 59 8 155 42 35 133 37	6 63 21 52 33 12 40	3, 765 5, 249 285 6, 572 1, 747 2, 541 12, 583	1880 1887 1888 1886 1883 1887 1885	4, 938 7, 309 578 7, 851 3, 179 3, 653 18, 546	1889 1884 1880 1889 1889 1881 1888	3, 120 522 60 4, 172 715 1, 412 8, 927	1884 1882 1884 1882 1881 1880 1880	3, 725 5, 259 301 6, 462 1, 598 2, 504 12, 289 929	1, 818 6, 787 518 3, 679 2, 464 2, 241 9, 619
Alabama: Mobile	134	1883	154	1880	121	1886	132	33	12, 458	1882	16, 611	1887	9, 824	1883	13, 676	6, 787
Mississippi: Pearl River	150	1889	170	1885	129	1886	151	41	6, 847	1889	11, 140	1880	4, 966	: 1881	6, 527	6, 174
Louisiana: New Orleans Teche	362 99	1882 1888	411 110	1889 1883	308 84	1884 1885	368 100	103 26	46, 751 3, 166	1880 1880	57, 848 3, 777	1889 1886	87, 623 2, 699	1885 1885	46, 604 3, 200	20, 225 1, 078
Texas: Galveston	. 12	1883 1880 1882 1884	197 37 43 16	1889 1889 1888 1888 1887	178 11 26 7 2	1884 1886 1885 1883 1888	186 23 33 12 3	19 26 17 9	8, 873 483 1, 121 667 516	1881 1880 1882 1880 1888	12, 465 838 1, 908 1, 222 562	1885 1889 1888 1888 1888	6, 804 183 763 382 425	1887 1884 1884 1883 1889	9, 196 548 1, 134 691 560	5, 661 655 1, 145 840 137

TABLE 34.—TONNAGE FLUCTUATIONS FOR THE 10 YEARS 1880-1889 (STEAMERS)—AVERAGE ANNUAL NUMBER AND AVERAGE ANNUAL TONNAGE OF ALL STEAMERS REGISTERED IN THE CUSTOMS DISTRICTS OF THE ATLANTIC COAST AND GULF OF MEXICO DURING THE 10 YEARS 1880-1889, WITH THE YEARS OF HIGHEST, LOWEST, AND MEAN REGISTRATION.

customs districts.	Annual average number of vessels	ABC	HEST OVE RAGE.	BEI	VEST LOW RAGE.		ST TO	Fluctu-	Annual average regis-		EST ABOVE ERAGE.		ST BELOW ERAGE.		SEST TO ERAGE.	Fluctu
	regis-	Year.	Num- ber.		Num- ber.	Year.	Num- ber.	aulon.	tered ton- nage.	Year.	Number of tons.	Year.	Number of tons.	Year.	Number of tons.	
Maine: Passamaquoddy	13 5 6 2	1885 1884 1888 1886	18 7 13 3	1880 1880 1880 1880	11 4 1	1883 1883 1883 1887	13 5 6 2	7 3 12 2	4, 320 111 308 35	1888 1880 1888 1889	5, 040 165 740 78	1883 1882 1880 1880	3, 216 75 32 25	1884 1889 1885 1887	4, 416- 109 218 30	1,82 9 70 5
BangorBelfastWaldoboroWiscasset	10 3 6 2	1889 1883 1880 1880	13 4 9 3	1880 1889 1883 1887	7 1 4 1	1888 1882 1888 1882	10 3 6 2	6 3 5 2	722 109 925 109	1889 1883 1884 1888	1, 102 157 1, 138 229	1882 1889 1883 1889	404 35 793 50	1887 1880 1880 1885	726 97 891 106	69 12 34 17
Bath	27 31 3 1	1884 1886 1883	32 39 4	1880 1881 1880	22 22 2	1882 1884 1882 1886	27 30 3	10 17 2	3, 864 9, 636 206 21	1889 1886 1883 1888	5, 724 12, 280 303 26	1881 1881 1880 1886	3, 019 6, 699 105 15	1888 1887 1887 1889	4, 165 9, 306 198 26	2, 70 5, 58 19
New Hampshire: Portsmouth	7	1888	9	1880	5	1881	7	4	. 349	1888	418	1880	206	1884	! 378	21
Massachusette: Newburyport. Gloucester Salem and Beverly Marblehead Boston and Charlestown	4	1881 1886 1887 1889 1884	16 8 6 3 132	1889 1884 1881 1881 1881	9 1 1 1 88	1886 1881 1880 1885 1882	14 6 4 2 102	7 7 5 2 44	796 196 162 42 38, 072	1884 1888 1880 1885 1889	916 211 811 73 50, 533	1889 1884 1881 1886 1881	468 69 14 11 25, 913	1887 1885 1886 1887 1883	801 209 170 49 36, 694	44 24 79 24, 62
Plymouth Barnstable Nantucket Edgartown New Bedford Fall River	1 2 1	1880 1889 1880 1887 1883	2 2 4 16 22	1886 1881 1881	1 11 18	1881 1880 1883 1889 1883 1880	1 2 1 13 20	1 1 8 5 4	335 58 998 14 3,021 20,593	1880 1889 1880 1889 1889	464 114 1,080 16 4,123 24,443	1882 1883 1886 1881 1881	159 7 578 11 2, 308 16, 051	1883 1886 1883 1889 1880 1885	344 46 1,062 16 2,963 21,802	30 10 50 1, 81 8, 39
Rhode Island: Providence Newport Bristol and Warren	31 17 6	1884 1889 1881	37 22 10	1881 1885 1885	27 11 3	1880 1881 1883	30 17 6	10 11 7		1882 1889 1882	22, 440 2, 691 287	1887 1884 1885	17, 848 1, 580 125	1884 1880 1883	19, 889 1, 968 185	4, 59 1, 11 16
Connecticut: Stonington		1883 1884 1880 1888 1889 1888	12 46 25 53 50 22	1888 1882 1885 1880 1880 1889	7 36 18 25 12 20	1887 1885 1882 1883 1884 1887	10 38 19 42 28 21	5 10 7 28 38 2	1, 397 16, 118 4, 672 8, 032 4, 980 3, 863	1885 1888 1880 1888 1889 1888	2, 256 17, 866 5, 917 9, 514 7, 696 4, 123	1889 1880 1886 1880 1880 1889	736 13, 334 3, 887 6, 462 3, 171 3, 505	1884 1886 1883 1883 1884 1887	1, 376 16, 106 4, 445 7, 731 4, 957 3, 962	1, 52 4, 53 2, 03 3, 05 4, 52

TABLE 34.—TONNAGE FLUCTUATIONS FOR THE 10 YEARS 1880-1889 (STEAMERS)—Continued.

CUSTOMS DISTRICTS.	Annual average number of	AVB	HEST OVE RAGE.	BE	VEST LOW RAGE.		EST TO	 Fluctu-	Aunual average		EST ABOVE ERAGE.		ST BELOW ERAGE.		SEST TO ERAGE.	Flucts
COIVAD DIDING 15.	vessels regis- tered.	Year.	Num- ber.	Year.	Num- ber.	Year.	Num- ber.	ation.	regis. tered ton- nage.	Year.	Number of tons.	Year.	Number of tons.	Year.	Number of tons.	ation.
New York: New York Sag Harbor	995 28	1889 1882	1, 0 76 33	1880 1889	824 23	1883 1883	978 28	252 10	344, 736 2, 483	1889 1887	372, 896 3, 024	1880 1880	290, 674 1, 955	1883 1882	336, 327 2, 547	82,2 1,0
New Jersey: Newark Perth Amboy Little Egg Harbor Great Egg Harbor Bridgeton Burlington	33 53 2 4 4	1889 1882 1885 1887 1885 1883	36 73 3 7 7 7 20	1880 1886 1880 1880 1880 1880	27 40 1 2 3	1886 1884 1882 1881 1883 1881	34 48 2 4 4 17	9 33 2 5 4 9	3, 404 8, 887 123 278 400 2, 719	1887 1882 1882 1888 1885 1886	3, 761 12, 048 215 553 828 4, 371	1880 1888 1887 1880 1880 1889	2,808 7,215 42 36 149 1,064	1882 1884 1880 1889 1888 1881	3, 450 8, 178 167 286 395 4, 221	4,8
Pennsylvania: Philadelphia	274	1883	289	1888	264	1885	277	25	74, 767	1883	79, 022	1881	70, 337	1886	74, 837	8.6
Delaware: Delaware	25	1889	31	1882	19	1884	25	12	4,306	1884	6, 291	1887	3, 547	1888	4, 207	2,7
Maryland : Baltimore Aннароlis Eastern	157 1 3	1884 1889	172	1880 1880	138	1887 1883 1882	157 1 3	34 5	49, 543° 91 198	1889 1885 1889	57, 221 106 444	1881 1883 1880	38, 459 45 19	1884 1886 1886	50, 391 106 208	18,7
District of Columbia: Georgetown	34	1881	38	1885	30	1887	34	8	8, 281	1887	9, 054	1880	6, 851	1882	8, 278	2,
Virginia: Alexandria. Tappahnunock Yorktown Richmond Peteraburg Norfolk and Portsmouth Cherrystone	12 4 3 17 3 61	1884 1882 1886 1882 1883 1889	14 5 4 20 4 70	1886 1880 1883 1885 1882 1880 1882	10 2 1 15 15 54	1880 1881 1884 1889 1881 1883 1887	12 4 3 17 3 63 3		568 240 571 1,589 115 5,222 196	1881 1881 1889 1884 1884 1889	756 356 1, 195 2, 091 210 6, 098 706	1887 1884 1883 1880 1882 1881 1882	428 92 57 986 16 4,679	1884 1880 1888 1888 1881 1887 1887	566 251 785 1,304 74 5,167 196	1, 1,
North Carolina: Albemarle	27 15 2 16	1889 1889 1885 1884	33 23 4 19	1880 1880 1883 1886	21 6 1 13	1882 1885 1884 1885	27 16 2 16	12 17 3 6	2, 196 947 127 1, 456	1888 1889 1885 1884	2, 461 1, 424 197 1, 926	1880 1880 1883 1887	1, 835 384 33 1, 041	1885 1883 1884 1881	2, 194 932 152 1, 438	1,
outh Carolina: Georgetown Charleston Beaufort	12 32 7	1880 1885 1887	14 : 34 11	1881 1886 1880	8 26 4	1885 1881 1884	12 32 6	6 8 7	747 5, 191 462	1889 1881 1887	1, 017 6, 080 743	1881 1882 1881	220 4, 258 196	1883 1889 1884	706 5, 222 409	1.
leorgia: Suvannah Brunswick St. Mary	29 15 2	1885 1889 1880	36 25 3	1880 1883 1884	. 18 8 1	1883 1881 1881	31 14 2	18 17 2	19, 411 1, 488 90	1885 1889 1880	22, 652 3, 653 294	1880 1883 1884	10, 504 691 34	1883 1881 1881	20, 685 1, 372 115	12.
Florida: Fernandina St. John St. Augustine Key West St. Mark Apalachicola Pensacola Tampa	2 41 4 14 8 11 20 12	1881 1886 1888 1888 1886 1888 1889	3 52 8 22 10 15 23	1880 1880 1880 1881 1883 1881 1880	1 29 1 9 5 6 16	1882 1887 1885 1885 1882 1884 1881	2 41 3 15 8 11 20	2 23 7 13 5 9	252 3,500 209 3,139 535 1,360 1,658 693	1881 1888 1888 1886 1885 1888 1884	408 5, 204 391 4, 005 919 1, 633 2, 316	1880 1881 1880 1889 1883 1881 1880	24 2, 024 27 1, 667 203 1, 157 1, 155	1882 1885 1889 1880 1884 1889 1883	322 3,574 194 3,243 563 1,383 1,704	3,1 3,1 3,2,3 7,7 4,1,10
Alabama : Mobile	48	1887	53	1884	41	1889	1 47	12	6, 048	1882	7, 209	1889	4, 913	1887	6, 150	2.2
lississippi: Pearl River	11	1882	18	1888	7	1880	12	11	950	1889	1,872	1881	656	1884	919	1,
ouisiana : Now Orleans Teche	24 30	1885 1888	30 35	1880 1881	. 21 26	1882° 1886	24 30	9	29, 659	1885	32,741	1882	27, 442	1887	20, 009	5.
Cexas: Galveston Corpus Christi Brazos de Santiago. Paso del Norte	32 2 3 2	1889 1883 1880	35 2 4	1880 1882	28	1888 1884 1882 1887	32 2 3 2	7 1 1		1888 1886 1883 1880	2, 197 5, 459 158 995		2, 573 112 274 424	1883 1882 1884 1882 1888	3, 149 158 448 425	. 1. 2.

TABLE 35.—TONNAGE FLUCTUATIONS FOR THE 10 YEARS 1880-1889 (SAILING VESSELS)—AVERAGE ANNUAL NUMBER AND AVERAGE ANNUAL TONNAGE OF ALL SAILING VESSELS REGISTERED IN THE CUSTOMS DISTRICTS OF THE ATLANTIC COAST AND GULF OF MEXICO DURING THE 10 YEARS 1880-1889, WITH THE YEARS OF HIGHEST, LOWEST, AND MEAN REGISTRATION.

CUSTOMS DISTRICTS.	Annual average number of vessels	rage AVERA		BE	VEST LOW RAGE.		EST TO RAGE.	Fluctu-	Annual average regis-		EST ABOVE ERAGE.		ST BELOW ERAGE.		SEST TO ERAGE.	Fluctu-
	regis- tered.	Year.	Num- ber.	Year.	Num- ber.	Year.	Num- ber.	łl :	tered ton- nage.	Year.	Number of tons.	Year.	Number of tons.	Year.	Number of tons.	:
Maine:	i .	–	1				:	ļ. ,		1						,
Passamaquoddy		1880 1885	186 191	1889	144 151	1884 1883	171 176	42	15, 892 17, 142	1880 1884	18, 803 20, 792	1887 1882	13, 155 14, 325	1884 1883	15, 557 16, 647	5, 648 6, 467
Frenchman Bay	231	1883	244	1889	214	1884	231	30	14, 359	1886	15, 509	1887	13, 222	1882	14, 457	2, 287
Castine Bangor	264 152	1880 1884	318 170	1886 1888	231 133	1883 1881	269 152	87	15, 235 23, 568	1880 1884	19, 057 26, 719	1887 1888	12, 738 20, 307	1885 1885	14, 458 22, 891	6, 319
Belfast	217	1885	251	1869	147	1881	228	104	42,088	1884	51, 520	1889	25, 433	1886	41, 263	26, 087
Waldoboro	364	1880	411	1889	310	188!	368	101	75, 651	1883	92, 661	1889	50, 139	1885	75, 195	42, 522
WiscassetBath	139 236	1880 1883	161 266	1889 1889	96 183	1886 1885	139 231	65 83	7. 709 138 026	1880 1884	9, 713 168, 6 31	1889 1889	6. 178 101, 820	1883 1881	7, 600 137, 373	3, 538 66, 811
Portland and Falmouth	324	1884	357	1889	265	1886	326	92	96, 197	1881	111, 536	1888	69, 294	1886	93, 026	42, 242
Saco	. 15	1882 1880	. 18 . 43	1889 1889	23	1887 1883	15 36	9 20	1, 515 5, 230	1884 1880	2, 273 8, 673	1880 1889	550 2, 838	1881 1883	1, 454 4, 864	1, 723 5, 835
York	10	1885	13	1889	5	1886	10	8	337	1885	415	1889	208	1888	335	207
New Hampshire: Portsmouth	60	1880	69	1889	55	1885	; 59	14	9, 668	1885	10, 502	1883	8, 649	1880	9, 657	1, 853
Massachusetts:											·			Ì		Ĵ
Newburyport Gloucester	41 478	1884 1885	54 504	1889	17 453	1882 1882	44	37 51	13, 438 31, 053	1884 1885	17, 907 33, 734	1889	8, 536 27, 182	1880 1883	12, 328 31, 162	9, 371 6, 552
Salem and Beverly	. 45	1880	64	1889 1889	32	1883	45	32 36	3, 755	1880	5, 840	1884	1,741	1883	4.017	4, 099
Marblehead Boston and Charlestown	43 635	1880 1882	733	1887	25 532	1884 1885	627	201	2, 461 219, 05 5	1885 1880	2, 963 237, 882	1881 1889	1,775 186,908	1880 1886	2, 419 219, 022	1, 188 50, 974
Plymouth	. 35	1880	. 49	1889	18	1885	34	31	1,754	1880	2, 490	1888	956	1885	1,694	1,543
Barnstable	308	1880	339 20	1889 1880	273 12	1886 1883	366 15	66 8	28, 423 379	1883	32, 729 488	1889 1880	21, 503 226	1886 1885	28, 862 410	11, 226 262
Edgartown	. 25	1880	33	1886	20	1880	24	13	1.325	1881	1,895	1888	935	1889	1,309	960
New BedfordFall River	202	1880 1881	250 98	1889 1889	. 150 ; 58	1885 1884	197 75	100	35, 317 21, 332	1880 1888	41.875 26,148	1880 1880	27, 226 15, 53 6	1884 1884	34, 659 21, 401	14, 649 10, 612
Rhode Island:			'		ļ	}	1	1								
Providence	. 95	1882	115	1889	72	1880	95	43 .	12,309 3,587	1882	15, 104	1889	8, 590	1881	12, 236	6, 514 1, 890
Newport	102	1880 1885	123 28	1887 1889	88 22	1885 1881	101 25	35 6	1, 364	1889 1882	4, 730 1, 752	1883 1883	2, 840 1, 039	1887 1885	3, 634 1, 386	713
Connecticut:			1							1	1		!	li.	!	!
Stonington New London	. 99 . 131	1880 1880	115 160	1883 1889	87 114	1882 1884	99 131	28 ·	5, 208 11, 431	1881 1889	7, 076 15, 607	1889 1882	3, 988 7, 9 69	1883 1885	5, 129 11, 821	3,088 7,638
Middletown	. 6:3	1880	; 77	1885	56	1882	66	21	6, 422	1880	7,508	1885	5, 938	1882	6, 323	1,570
Hartford New Haven	.: 41 117	1887 1881	45 146	1889 1889	39 92	1888	115	1 6 54	4, 003 18, 680	1887 1888	4, 801 25, 271	1889 1882	3, 465 14, 322	1888 1886	3, 744 19, 229	1, 336
Fairfield	137	1882	157	1889	110	1885	135	47	5, 689	1880	6, 986	1883	5, 171	1885	5, 708	1, 815
New York: New York	2,357	1001		1000	.2, 112	1005	2, 437	907	484, 666	1000	E40 107	1888	400, 191	1883	505, 560	 147, 996
Sag Harbor	2,357	1881	2, 499 260	1889	194	1884	221	387 66	10, 830	1880 1880	548, 187 12, 369	1889	7,981	1887	10, 846	4, 388
New Jersey:							1	i		ľ	i					0.055
Newark Perth Amboy	307	1884 1883	357	1882 1887	27 279	1888 1889	34	17 78	2, 579 15, 606	1884 1883	3, 859 17, 799	1881	1, 508 14, 481	1883 1880	2, 644 15, 849	2, 351 3, 318
Little Egg Harbor Great Egg Harbor	. 56	1880 1889	71 165	1880	124	1884 1882	59 136	29	4, 190 16, 534	1880 1889	5, 416 17, 837	1889 1883	2, 679 14, 348	1885 1881	4, 294 16, 483	2, 737 3, 489
Bridgeton	. 380	1888	434	1880	311	. 1884	373	123	18, 208	1885	20, 259	1880	16, 004	1889	17, 767	4, 255
Burlington	. 37	1980	50	1887	24	1886	32	26	2, 654	1880	3, 523	1887	1, 595	1886	2, 447	1,928
Pennsylvania: Philadelphia	. 559	1880	643	1889	481	1884	574	159	131, 660	1886	143, 162	1889	118, 695	1880	132, 089	24, 467
Delaware: Delaware	. 158	1888	172	1882	144	1884	157	28	13, 268	1889	15, 142	1881	11,950	1888	13, 409	3, 192
Maryland:	. 000	1005	1 000	1000	1 0-1	1000	••••		01 040	* * * * * * * * * * * * * * * * * * * *	00 000	1000		1888	61 246	12,665
Baltimore	138	1884	1,083 162	1880 1880		1889 1888	990 144	212 44	61, 649 2, 799	1889	68, 090 3, 309	1889 1880	55, 425 2, 26 2	1886	61, 346 2, 832	1,047
Eastern	. 792	1887	874	1880	656	1884	816	218	18, 531	1885	20, 103	1880	16, 6 01	1882	18, 120	3, 502
District of Columbia: Georgetown	49	1880	71	1886	35	1882	49	36	1, 980	1884	3, 066	1886	937	1880	1, 920	2, 129
Virginia:			1				:									
Alexandria	71	1881 1885	145	1887 1880	56 100	1883 1884	72 128	32 45	3, 547 3, 262	1884 1886	5, 3 -6 3, 883	1889 1880	1,574 2,418	1888 1884	3, 8 92 3, 151	3, 812 1, 465
YorktownRichmond.	. 189	1887 1888	219 50	1882 1880	131	1883 1886	201 42	88 29		1887 1885	5, 907 8, 035	1881 1880	1, 994 3, 515	1884 1887	3, 880 4, 845	3, 913 4, 520
Petersburg	. 2	1886	4	1880	21	1885	. 2	3	64	1882	262	1884	7	1886	45	255
Norfolk and Portsmouth Cherrystone	369	1882 1882	411 360	1884 1884	331 283	1881 1881	367 338	80 77	10, 584 5, 347	1859 1888	12, 878 5, 807	1888 1884	8, 620 4, 573	1882	10, 571 5, 341	4, 258 1, 234
North Carolina:			i	1		1		" .				ì		l [']		
Albemarle	. 48	1889	58	1883	39	1882	47	19	744	1881	954	1886	578	1887	696	370
PamlicoBeaufort	. 85	1883 1889	111	1886	98 65	1886 1886	105 85	13 56	1, 443	1883 1889	2, 522 2, 012	1887 1881	1,059	1884 1885	2, 104 1, 434	953
Wilmington	54	1861	75	1889	32	1885	59	43		1884	7, 543	1889	2, 569	1880	4. 879	4, 971
South Carolina:	_	100		1001	_	1000			; 1 101	100*	1 000	1001	075	1887	1, 203	1 484
Georgetown Charleston	. 145	1885 1882	11 158	1881 1886	134	1886 1883	141	24	1, 161 3, 729	1885 1887	1, 826 4, 448	1881 1888	375 2, 713	1886	3, 6 0)	1, 451 1, 735
Beaufort	.[17	1883	21	1887	10	1880	17			1883	1,540	1887		1889	728	1, 333

TABLE 35.—TONNAGE FLUCTUATIONS FOR THE 10 YEARS 1880-1889 (SAILING VESSELS)—Continued.

	Annual average number of vessels registered.	erage AVERAGE.		LOWEST BELOW AVERAGE.		CLOSEST TO AVERAGE.		Fluctu-	Annual average regis-	HIGHEST ABOVE AVERAGE.		AVERAGE.		CLOSEST TO AVERAGE.		Fluctu-
		Year.	Num- ber.	Year.	Num- ber.	Year.	Num- ber.		tered ton- nage.	Year.	Number of tons.	Year.	Number of tons.	Year.	Number of tons.	
Georgia: Savannah Brunswick St. Mary	54 28 2	1881 1884 1880	61 38 4	1884 1886 1881	46 23 1	1880 1880 1882	54 28 2	15 15 3	3, 8 61 5, 869 456	1884 1884 1880	5, 498 9, 899 1, 228	1887 1888 1881	2, 119 4, 022 7	1880 1881 1882	3, 806 5, 524 395	3, 37 5, 87 1, 22
Florida: Fernandina St. John St. Augustine Key West	15 21 6 148	1880 1889 1889 1888	17 27 15 173	1886 1884 1880 1881	12 12 1 134	1884 1883 1884 1889	15 20 6 146	5 15 14 39	3, 512 2, 099 139 3, 433	1880 1883 1834 1888	4, 914 2, 891 301 3, 886	1883 1884 1880 1889	2, 845 522 33 2, 505	1887 1881 1887 1881	3, 519 1, 942 133 3, 388	2, 06 2, 36 26 1, 38
St. Mark Apalachicola Pensacola Tampa	33 25 114 25	1885 1886 1885	28 128	1881 1884 1882	13 19 88	1882 1880 1886	34 25 114	31 9 40	1, 209 1, 182 10, 925 236	1883 1887 1885	2, 976 2, 264 17, 103	1889 1881 1882	343 255 6, 844	1881 1882 1880	1, 186 1, 210 11, 134	2, 63 2, 00 10, 23
Alabama: Mobile	79	1883	99	1887	63	1881	80	36	6, 013	1881	9. 338	1887	3, 136	1889	4, 986	6, 20
Mississippi: Pearl River	133	1889	158	1880	119	1881	130	39	5, 526	1889	9, 268	1880	2,970	1883	5, 187	6, 29
Louisiana : New Orleans Techea	337 69	1882 1887	387	1889 1883	287 56	1884 1885	341 68	100 19	17, 092 1, 564	1880 1880	29, 928 2, 030	1889 1889	9, 169 1, 196	1884 1884	16, 506 1, 689	20, 75 83
Texas: Galveston	151 24 30 9	1883 1880 1882 1884	163 37 42 12	1889 1889 1888 1888	138 11 22 4	1884 1886 1885 1883	151 23 29 9	25 26 20 8	4, 886 483 865 224	1881 1880 1882 1884	7, 865 838 1, 796 458	1885 1889 1888 1888	3, 572 183 382 108	1883 1884 1887 1880	4, 876 548 843 227	4, 29 63 1, 41

TABLE 86.—TONNAGE FLUCTUATIONS FOR THE 10 YEARS 1880-1889 (UNRIGGED CRAFT)—AVERAGE ANNUAL NUMBER AND AVERAGE ANNUAL TONNAGE OF ALL UNRIGGED CRAFT REGISTERED IN THE CUSTOMS DISTRICTS OF THE ATLANTIC COAST AND GULF OF MEXICO DURING THE 10 YEARS 1880-1889, WITH THE YEARS OF HIGHEST, LOWEST, AND MEAN REGISTRATION.

CUSTOMS DISTRICTS.	Annual average number of	VERAGE		BELOW		CLOSEST TO		Fluctu	Annual average	AV	EST ABOVE ERAGE.		ST BELOW ERAGE.		SEST TO ERAGE.	Fluctu
	vessels regis- tered.	Year.	Num- ber.	Year	Num- ber.	Year.	Num- ber.	ation. tered ton-	Year.	Number of tons.	Year.	Number of tons.	Year.	Number of tons.	ation	
Iaine:				!					i.	1		. — .		 I	-	
Machias	1					'		'	122	j		'				
Bangor	1	• • • • • •			·	1887 1880	1	'	238			• • • • • •	• • • • • • • • • • • • • • • • • • • •	1887 1880	238 253	
WaldoboroBath	1 4	1888	12	1880	1	1886	1 4	11	255 2, 928	1888	10, 054	1880	151	1886	2, 272	9,
laseachusetts:				ļ.	1								1	1		
Newburyport	2				· · · · · · ·	1880	2		87					1880	87	
Cloucester	1 13	1889	20	1887	.`	1888 1888	1 14	16	122	1889	19, 610	1887	4, 362	1888	122 15, 053	15,
Fall River	9	1883	10	1885	. 8	1880	9	2	3, 571	1889	4, 149	1885	2, 884	1881	3, 626	1.
hode Island: Providence	3			1886	. 2	1887	3	1	957	1887	1, 046	1886	689	1888	1, 046	! :
onnecticut:	١,			ļj	ļ				! - 400			:		: I.		
Stonington New London	1 14	1889	20	1880	3	1884	15	17	482 3, 493	1889	5, 571	1880	289	1885	3, 839	5,
Middletown	17	1886	21	1880	1 4	1892	19	17	3, 348	1886	4, 133	1880	641	1881	2, 937	3,
New Haven	113		140	1881	63	1888	121	77	15, 643	1883	19, 660	1881	7, 160	1888	16, 828	12,
Fairfield	2 20	1888 1889	4 22	1881 1887	1 19	1880 1888	2 20	3	287 4, 136	1888 1889	570 4, 343	1881 1887	148 3, 860	1887 1888	297 4, 204	,
	20			1001	10	1000	!		4, 130	1005	7, 020	1001	5,600	1000	1, 201	
ew York: New York	484	1889	631	1880	402	1886	476	229	96, 727	1889	129, 455	1880	79, 196	1886	94, 261	50,
Sag Harbor	2	1880	3	1884		1883	2	228	1, 433	1880	2, 569	1884	781	1883	1, 938	1
ew_Jersey:					!			Ĭį.	i	İ	!	İ	1	1		
Perth Amboy	65 6	1882 1880	99	1884 1889	1 48 1	1888	63	. 21	16, 705 853	1889 1880	21, 802 1, 029	1880 1889	10, 661	1887	16, 406 1, 029	11,
ennsylvania: Philadelphia	32	1889	46	1880	29	1885	32	17	. 6,765	1889	11, 137	1880	4, 822	1885	6, 693	6,
Oclaware: Delaware	2	: . • • • • •			 .	1880	2	` ••••••	357	1882	596	1880	117	1882	596	:
daryland:	_			i	1						i	!				.1
Baltimore Eastern	8	1888	17	1881	3	1884	. 8		1, 517 947	1888	3, 241	1881	249	1889	1,391	2,
District of Columbia: Georgetown	1	1887	. 2		.,	1885	1	. 1	586	1887	7 4 2	1885	508	1886	508	
7 irginia :		:	i				!	İ	1		1	li			1	1
Yorktown	1				• •	1880	1		429	1887	815	1880	43	1880	43	1
Richmond	. 2	!		·		1880	2		156			¦		1880	156	
Tapfishannock	1	,		·	• • • • • • • • • • • • • • • • • • • •	1888	1		71			· · · · · ·	·	1888	71	····
outh Carolina: Beaufort	1		 .i]: 51	İ	:					
corgia:	2	ĺ							i k	1000			9	1000		
Savannah	;			1889	1	1888	2	1	593	1888	1, 177	1889	,	1888	1, 177	1,
St. Mark	1			1	.	ļ	: 	<u> </u>	32	· · · · · · ·		 	·	·····		
labama: Mobile	8	1885	11	. 1880	1 4	: 1886	8	7	398	1887	538	1882	174	1889	413	
fississippi: Pearl River	19		· · · · · · · ·	1880	18	1881	19	1	1, 235	1881	1, 263	1880	1, 180	1882	1, 263	
ouisiana: Teche	2] 		· 	<u> </u>	ļ ;			100			:	·		ļ	
Cexas:	!	:				i i		1	(i (i	[!	1				
Galveston	4	1887	6	1880	2	1882	4	4	718	1887	981	1885	367	1883	735	Ï.
Corpus Christi	2		·j·		-	1884 1888	2	• • • • • • •	223		· · · · · • · · · · · · · · · · · · · ·			1884 1888	223 137	
POSO GAL NAPTA	1	11	1				1		137			1889	136			

TABLE 37.—SHIPBUILDING FOR THE 10 YEARS 1880-1889 (ALL VESSELS)—NUMBER AND TONNAGE OF ALL STEAMERS, SAILING VESSELS, AND UNRIGGED CRAFT BUILT IN THE CUSTOMS DISTRICTS OF THE ATLANTIC COAST AND GULF OF MEXICO DURING THE 10 YEARS 1880-1889.

SUMMARY.

	T	otal.	Stea	mers.	Sailing	vessels.	Unrigg	ed craft.
YEARS AND CUSTOMS DISTRICTS.	Number.	Tonnage.	Number.	Tonnage.	Number.	Tonnage.	Number.	Tonnage
Total	6, 727	1, 148 350	1,610	418, 684	4, 562	618, 705	555	110,9
0	588	92, 679	141	32, 974	397	52, 671	50	7,0
1	636	112, 535	185	41, 394	406	60, 890	45	10,
3	875 873	170, 541 192, 689	210 189	56, 343 65, 078	553 631	93, 583 119, 060	112 53	. 20, 8,
4	869	166, 890	197	49, 036	634	108, 200	38	9,
5 . 	643	109, 657	155	44, 017	465	59, 332	23	6,
B	491	57, 674	100	19, 096	355	33, 116	36	5.
7 8	538 602	73, 076 82, 951	123 161	38, 972 30, 466	371 333	24, 252 30, 318	108	10, 2 2,
······································	612	89, 058	149	41,308	417	37, 281	46	10,
	186	90						
Total	588	92, 679	141	32, 974	397	52, 671	50	7,
ine	90	37, 165	12	1, 155	78	36, 010	·	===:
December					!	_ `		
Passamaquoddy	1 3	33 642	1	•3.3	3	642		· · · · · · · · · · · · · · · · · · ·
Frenchman Bay	. 3	312		••••••	3	312		
CastineBangor	7 2	802 96		• • • • • • • • • • • • • • • • • • • •	7 2	8:12 96		
<u> </u>	1							
Belfast	7 8	2, 930 5, 064	2	97	7 6	2, 930 4, 967		• • • • • • • • • • • • • • • • • • •
Wiscasset	3	164	i	139	2	25		
Bath	36 10	19, 762	1	15	35	19, 747		
Kennebunk	10	4, 784 2, 576	3 4	496 375	6	1, 288 2, 201		
ssachusetts	36	3, 819	7	1. 274	29	2, 545	:!	
Newburyport	4	332	1	36	3	296		
Gloucester	7	713	[7			
Marblehead	17	2,726	6	1, 238	11	7 1, 488		
Nantucket	7	41	ļ	1, 200	17	41	·	
xle Island	14	310	i ¹ 4	206	10	104		
Providence	5	173	, 1	131	4	42		
Bristol and Warren Newport	3 6	75 62	3	75	6	62	ļ	• • • • • • • • • • • • • • • • • • •
necticut	44	5, 080	j 3	653	10	1, 276	31	. 3.
Stonington		539	2	507	i		`i':	
New London	3 2	533 133	i 1 1	527 126	1 1	6 7		
Middletown	. 2	150	F		j 2	150		3,
New Haven Fairfield	35 2	4, 230 34	j		2	1, 079 34	31	
v York	109	8, 632	41	3, 842	59	3, 106	9	1.
New YorkSag Harbor	102	7, 877 755	40	3, 831	- 53	2, 362	9	1.
	İ	!		11	6	744		1.
y Jersey	43	4, 458	5	707	$-\frac{32}{1}$	1, 825 64	-	
Perth Amboy	12	2, 564	3	677	. 4	47	j 5	1.
Little Egg Harbor Great Egg Harbor	6	65 190	1	17	6 8	65 173		
Bridgeton Burlington	10	1, 442 133	i	13	10	1. 442 34	1	
nsylvania: Philadelphia	43	21, 295	i. 28	16, 958	15	4, 337	ļ	
aware . Delaware	22	8, 473	12	7, 116	10	1, 357		
yland	56	. KR8	, 7	222	48	616	1	
Daleimana	23	'	7	222	!			
Baltimore	1	445 9		222	15	173 9	1	
Eastern	32	1			32	434		
Eastern		:	,		i l		4	

COMPARATIVE STATISTICS—Continued.

TABLE 37.—SHIPBUILDING FOR THE 10 YEARS 1880-1889 (ALL VESSELS)—Continued.

1881--Continued.

	Total.		Stea	mers.	Sailing	z vessels.	Unrigged craft.		
CUSTOMS DISTRICTS.	Number.	Tonnage.	Number.	Tonnage.	Number.	Tonnage.	Number.	Tonnage	
Rhode Island	16	149	5	67	11	82			
Providence	6	43	1		6	• 43			
Bristol and Warren Newport	6	74 32	5	67	1 4	$\begin{matrix} & 7 \\ 32 \end{matrix}$			
Connecticut	36	4, 186	4	177	17	1, 097	. 15	. 2, 9	
Stonington	2 7	12	ļ		2	12	·		
New London Middletown	7	252 1, 401	2	102	5 3	150 36	4	1,3	
New Haven Fairfield.	18	2, 478 43	1	43 32	8	888 11	11	1, 5	
Yew York	117	13, 097	61	8, 840	44	1, 730	12	2, 4	
New York	113	13, 020	61	8, 880	40	1, 662	12	2.4	
Sag Harbor.		68			4	68			
New Jersey	. 41	5, 924	11	1, 056	23	2, 031	7	2, 8	
Newark Perth Amboy	3 22	46 3, 882	2 8	35 982	. 1	11 63	į <u>.</u>	2,8	
Little Egg Harbor	.1 1	22	¦		i	22	· · · · · · · · · · · · · · · · · · ·		
Great Egg Harbor Bridgeton	11	557 1, 417	1	39	10	557 1, 378		:	
Pennsylvania: Philadelphia	56	1 25, 828	42	22, 087	12	3, 279	2	•	
Delaware: Delaware	. 26	5, 249	10	2,348	12	1,998	4	9	
daryland	. 34	1, 953	4	1 488	50	1, 465		ļ 	
Baltimore		1, 309	4	488	21	821	ļ		
Annapolis. Kastern		57 587		·	27	57 587	ļ 		
District of Columbia: Georgetown	1	10	1	10				l	
Virginia	. 38	1, 463	3	119	33	. 996	2	3	
Alexandria	. 2	685			2	685		· • • • • • • • • • • • • • • • • • • •	
Tappahannock	5	32 13	<u> </u>		5	32 13	·····		
Yorktown	. 8	70	!		8	70	11		
Petersburg		43 95	1	43	9	95	. اا	· • • • • • • • • • • • • • • • • • • •	
Norfolk and Portsmouth		525	2	76	8	101	2	1	
North Carolina	. 17	6:12	.r6_	122	· 	311	2	1	
Albemarie	. 5	49	5	49	<u>.</u>		· <u>-</u>		
Pamlico Wilmington	10 2	499 84	1		7 2	227 84	2	<u> </u>	
South Carolina: Charleston	. 10	685	2	547	8	138		: . • • • • • • • • • • • • • • • • • • •	
Jeorgia	. 6	646	3	615	3	31		••••••	
Savannah	2	15 631	3	615	2	15 16			
Florida	. 27	976	. ; 8	735	19	 241			
St. John	6	268	1 3	212	3	56	<u> </u>		
St. Augustine.	i	13			1	13			
Key WestSt. Mark	5 2	49 92	······ <u>2</u> ··	92	5	49			
A palachicola. Pensacola.	. 5	371 183	2	342	3 7	29 94			
llabama : Mobile	7	431	4	342	3	89		•••••	
fissinsippi: Pearl River	. 7	176			7	176			
ouisiana	; : 31	573	3	142	28	431			
New Orleans		<u>.</u>			i		il		
Toche	20	237 336		142	. 20 . 8	237 194			

ATLANTIC COAST AND GULF OF MEXICO.

COMPARATIVE STATISTICS—Continued.

TABLE 37.—SHIPBUILDING FOR THE 10 YEARS 1880-1889 (ALL VESSELS)—Continued.

1881—Continued.

CUSTOMS DISTRICTS.	T.	otal.	Ster	amers.	Sailing	z vossels.	Unrigged craft.		
CUSIONS DISTRICTS.	Number.	Tonnage.	Number.	Tonnage.	Number.	Tonnage.	Number.	Tounage.	
exas	10	737	2	39	8	098	1		
Galveston Saluria Corpus Christi	3	633 87 17	2	39	3 1	594 87 17			
	188	32	<u> </u>		!		!!		
Total	875	170, 541	210	56, 343	553	93, 585	112	20, 61:	
aine	134	63, 205	14	1, 909	120	61, 296		=== ···	
Passamaquoddy	5 10	200 459	2 2	168 41	3 8	32 418			
Frenchman Bay. Castine Bangor	1 5 6	19 638 991	3	19 177	5 3	6:18 814			
Belfast Waldoboro	12 20	5, 382 10, 035	i	307	12 19	5, 382 9, 728	!		
Wiscasset. Bath	6 57	1, 376 39, 451	3	1. 032	6 54	1, 376 38, 419	1		
Portland and Falmouth Kennebunk	7 5	2, 421 2, 233	2	165	5 5	2, 256 2, 233	/' 'i		
assachuects	60	13, 773	10	2, 791	50	10, 982	· 		
Newburyport	4 22	4, 100 1, 6 81			4 22	4, 100 1, 68 1	1	· · · · · · · · · · · · · · · · · · ·	
Salem and Beverly Marblehead	1 3	10	' '		1 3	1, 001 10 90			
Boston and Charlestown	25	7,608	10	2, 791	15	4. 817			
Barnstable	2 2	259 14			$\frac{2}{2}$	259 14			
Fall River	ī	ii			ĭ	ii			
hode Island	12	352	5 -	295	7	57	·i		
Providence. Bristol and Warren Newport	7 4 1	111 234 7	4	61 234	6	50			
onnecticut	18	16, 636	10	3, 313	18	2, 218	70	 11, 165	
Stonington	6	3, 071	2	2, 931	4	140	1		
New London Middletown	4	473 778 12, 162	0 5	durit.	i	473 28	i <u>3</u>	750	
New Haven Fairfield	17	152	3	265 117	5	1, 542 35	67	10, 35	
ew York	151	18, 667	61	10, 195	61	3,641	20	4, 831	
New York Sag Harbor	143	47, 964 703	57 4	9, 518 677	57	3, 615 26	29	4, 831	
ew Jersey	42	6, 409	8	536	29	3, 276	5	2, 597	
Newark	13	220 2, 865	3 2	220 159	6	109	5	2, 597	
Little Egg Harbor Great Egg Harbor	1	1,051			1 7	23 1, 051			
Bridgeton Burlington	15	2,093 157	3	157	15	2, 093			
ennsylvania: Philadelphia	55	28, 991	-38	24,470	14	4,088	3	433	
DelawareDelaware	20	10,559	14	7, 671	13	2, 292	2	594	
faryland	100	6,000	12	2, 661	90	2, 377	3	1, 05	
Baltimore Eastern	7	1,014	11	2, 879 282	42 48	1, 235 1, 142	3	1, 05	
District of Columbia : Georgetown			- 2	- 100	1	35	*********		
irginia				7575	-30	614			
Alexandria					1	7			
Tappabannock				13	5				
Yorktown. Cherrystone. Norfolk and Portsmonth				100	7		********		
N								D.	

COMPARATIVE STATISTICS—Continued.

TABLE 37.—SHIPBUILDING FOR THE 10 YEARS 1880-1889 (ALL VESSELS)—Continued.

			1 0				, TT	
CUSTOMS DISTRICTS.		otal. 	Stea	mers.	Sailing	r vessels.	Unrigg	ed craft.
	Number.	Tonnage.	Number.	Tonnage.	Number.	Tonnage.	Number.	Tonuag
orth Carolina	23	699	9	503	14	196] 	
Albemarle	6 8	107 350	3	34 299	3 5	73 51		
Pamlico	6	72		I	6	72		
Wilmington	. 3	170	3	170	· 			
uth Carolina	11	1, 157	3	1,024	8	133		
Georgetown Charleston	10	51 1, 106	1 2	973	8	133		• • • • • • • • • • • • • • • • • • •
orgia	5	. 46	3	32	2	14		
Savannah Brunswick	1 4	38 8	2	24 8	2	14		
orida	35	734	. 9	338	26	396		
Fernandina	2	75	1	'	2	75		
St. John Key West.	8 12	255 127	6	226	2 12	29 127	II	
St. Mark	., 5	55			5	55	ļ:	
Apalachicola Pensacola	3 5	112 110	3	112	5	110		
abama: Mobile	6	406	į		6	406		
saissippi: Pourl River	21	510	1	27	20	483		
uisiana	26	1,099	5	265	21	834		
New Orleans	17	228 871	5	265	17	228 606		
xaa.	15	247	 		15	247	! 	
Galveston	10	147			10	147		
Saluria	2	27			2	27		
Corpus Christi	1 1	50 23			2	50 23	1	
	188	33						
Total	185	192, 689	189	65, 078	631	119,060	53	
			189		631	119, 060 72, 142	53	1
ine	873 179 2	192, 689 79, 295	\ <u></u>		165	72, 142 94	53	
ine	873	192, 689 79, 295	\ <u></u>		165	72, 142	53	
Passamaqueddy	873 179 2	192, 689 79, 295 94 2, 678	14	7, 153	165 2 12	72, 142 94 2, 678	53	
Passamaquoddy. Machias Frenchman Bay. Castine Bangor.	179 2 12 3 3 6	79, 295 94 2, 678 266 1, 140	14	7, 153 20 328	165 2 12 2 3 4	72, 142 94 2, 678 246 1, 140 1, 023		
Passamaquoddy. Machias Frenchman Bay Castine Baugor. Belfast Waldoboro	2 12 3 3 6 6 17 26	79, 295 94 2, 678 266 1, 140 1, 351 6, 979 13, 602	14 2 1	7, 153 20 328 11	165 2 12 2 3 4 16 26	72, 142 94 2, 678 246 1, 140 1, 023 6, 968 13, 602		
Passamaquoddy. Machias Frenchman Bay Castine Bangor. Belfast Waldoboro Wikcasset Bath	179 2 12 3 3 6 17 26 19 73	79, 295 79, 295 94 2, 678 266 1, 140 1, 351 6, 979	14	7, 153 20 328	165 2 12 2 3 4	72, 142 94 2, 678 246 1, 140 1, 023 6, 968 13, 602 3, 564 36, 765		
ine Passamaquoddy. Machias Frenchman Bay. Castine Bangor. Belfast Waldoboro. Wiscasset	2 12 3 3 6 6 17 26 19 73 14	79, 295 94 2, 678 266 1, 140 1, 351 6, 979 13, 602 3, 604	14 1 2 1	7, 153 20 328 11	165 2 12 2 3 4 16 26 18	72, 142 94 2, 678 246 1, 140 1, 023 6, 968 13, 602 3, 564		
Passamaquoddy. Machias Frenchman Bay Castine Bangor. Belfast Waldoboro Wiscasset Bath Portland and Falmouth Kennebunk	2 12 3 3 6 19 73 14 4	79, 295 91 2, 678 2, 678 2, 678 1, 140 1, 351 6, 979 13, 602 3, 604 43, 519 5, 658	14 1 2 1	7, 153 20 328 11	165 2 12 2 3 4 16 26 18 64	72, 142 94 2, 678 246 1, 140 1, 023 6, 968 13, 602 3, 564 36, 765 5, 658		
Passamaquoddy Machias Frenchman Bay Castine Bangor. Belfast Waldoboro Wiscasset Bath Portland and Falmouth Kennebunk W Hampshire: Portsmouth	2 12 3 3 6 19 73 14 4	79, 295 94 2, 678 266 1, 140 1, 351 6, 979 13, 602 3, 604 43, 519 5, 658 404	14 1 2 1	7, 153 20 328 11	165 2 12 2 3 4 16 26 18 64 14	72, 142 94 2, 678 2,46 1, 140 1, 023 6, 968 13, 602 3, 564 36, 765 5, 658 404		
Passamaquoddy. Machias Frenchman Bay. Castine Bangor. Belfast Waldoboro Wiscasset Bath Portland and Falmouth Kennebunk w Hampshire: Portsmouth	170 2 12 3 3 6 17 26 19 73 14 4 1 95	79, 295 24 2, 678 266 1, 140 1, 351 6, 979 13, 602 3, 604 43, 519 5, 658 404	14	7, 153 20 328 11 40 6, 754	165 2 12 2 2 3 4 16 28 18 64 14 4	72, 142 94 2, 678 246 1, 140 1, 023 6, 968 13, 602 3, 564 36, 765 5, 658 404 561		
Passamaquoddy. Machias Frenchman Bay Castine Bangor Belfast Waldoboro Wiscasset Bath Portland and Falmouth Kennebunk W Hampshire: Portsmouth ssachusetts Newburyport Gioncester	170 2 12 3 3 6 17 26 19 73 14 4 1 95	192, 689 79, 295 91 2, 678 266 1, 140 1, 351 6, 979 13, 602 3, 604 43, 519 5, 658 404 561 20, 257 7, 445 4, 362	14	7, 153 20 328 11 40 6, 754	165 2 12 2 3 4 16 26 18 64 11 4 1 1 83	72, 142 94 2, 678 246 1, 140 1, 023 6, 968 13, 602 3, 564 36, 765 5, 658 404 561 15, 906 7, 445 4, 177		
Passamaquoddy. Machias Frenchman Bay Castine Bangor. Belfast Waldoboro Wiscasset Bath Portland and Falmouth Kennebunk W Hampshire: Portsmouth Sasachusetts Newburyport Gloucester Salem and Beverly Boston and Charlestown	179 2 12 3 3 6 179 73 14 4 1 95	192, 689 79, 295 91 2, 678 266 1, 140 1, 351 6, 979 13, 602 3, 604 43, 519 5, 658 404 561 20, 257	14	7, 153 20 328 11 40 6, 754	165 2 12 2 2 3 4 16 26 18 64 14 4 1 1 1 83	72, 142 94 2, 678 2,46 1, 140 1, 020 3, 564 36, 765 5, 658 404 561 15, 906 7, 445		
Passamaquoddy. Machias Frenchman Bay. Castine Bangor. Belfast Waldoboro Wiscasset Bath Portland and Falmouth Kennebunk w Hampshire: Portsmouth saachusetts Newburyport Gloucester Salem and Beverly Boston and Charlestown Barnstable	179 2 12 3 3 6 17 26 19 73 14 4 1 95 10 48 3 28 4	102, 680 79, 295 2, 678 2, 678 2, 660 1, 140 1, 351 6, 979 13, 602 3, 604 43, 519 5, 658 404 561 20, 257 7, 445 4, 362 1, 362	14	7, 153 20 328 11 40 6, 754 4, 351 185 4, 166	165 2 12 2 3 4 16 26 16 64 14 4 1 1 83 10 46 3 18	72, 142 94 2, 678 246 1, 140 1, 023 6, 968 13, 602 3, 564 36, 765 5, 658 404 561 15, 906 7, 445 4, 177 160 3, 985 , 125		
Passamaquoddy Machias Frenchman Bay Castine Bangor Belfast Waldoboro Wiscasset Bath Portland and Falmouth Konnebunk W Hampshire: Portsmouth Sasachusetts Newburyport Gloucester Salem and Beverly Boston and Charlestown	170 2 12 3 3 6 6 19 73 14 4 1 95 10 48 3 3 28 4 1 1	192, 689 79, 295 91 2, 678 266 1, 140 1, 351 6, 979 13, 602 3, 604 43, 519 5, 658 404 561 20, 257 7, 445 4, 362 180 8, 151	14	7, 153 20 328 11 4, 351 185 4, 166	165 2 12 2 3 4 16 26 18 64 14 4 1 1 83 10 46 3	72, 142 94 2, 678 2,46 1, 140 1, 023 6, 968 13, 602 3, 564 36, 765 5, 658 404 561 15, 906 7, 445 4, 177 100 3, 985		
Passamaquoddy Machias Frenchman Bay Castine Bangor Belfast Waldoboro Wiscasset Bath Portland and Falmouth Kennebunk W Hampshire: Portsmouth saschusetts Newburyport Gloncester Salem and Beverly Boston and Charlestown Barnstable Nantucket New Bedford	873 179 2 12 3 3 6 17 26 19 73 14 4 1 95 10 48 3 28 4 1 1	192, 689 79, 295 2, 678 2, 678 2, 678 2, 678 1, 140 1, 351 6, 979 13, 602 3, 604 43, 519 5, 658 404 561 20, 257 7, 445 4, 362 160 8, 151 125 6	14	7, 153 20 328 11 40 6, 754 4, 351 185 4, 166	165 2 12 2 2 3 4 4 6 64 114 4 1 1 83 18 4 1 1 1	72, 142 94 2, 678 2,46 1, 140 1, 023 6, 968 13, 602 3, 564 36, 765 5, 658 404 561 15, 906 7, 445 4, 177 1,60 3, 985 125 6		
Passamaquoddy. Machias Frenchman Bay Castine Bangor Belfast Waldoboro Wiscasset Bath Portland and Falmouth Konnebunk W Hampshire: Portsmouth Newburyport Gloucester Salem and Beverly Boston and Charlestown Barnstable Nantucket	873 179 2 12 3 3 6 17 26 19 73 14 4 1 95 10 48 3 28 4 1 1	192, 689 79, 295 91 2, 678 266 1, 140 1, 351 6, 979 13, 602 3, 604 43, 519 5, 658 404 561 20, 257 7, 445 4, 362 180 8, 151 125 6 8	14 2 1 1 1 9	7, 153 20 328 11 40 6, 754 4, 351 185 4, 166	165 2 12 2 3 4 16 28 18 64 11 4 4 11 83 10 46 3 18 4 1 1	72, 142 94 2, 678 2,46 1, 140 1, 023 6, 968 13, 602 3, 564 36, 765 5, 658 404 561 15, 906 7, 445 4, 177 100 3, 985 125 6 8		

COMPARATIVE STATISTICS—Continued.

TABLE 37.—SHIPBUILDING FOR THE 10 YEARS 1880-1889 (ALL VESSELS)—Continued.

1884

·	То	tal.	Stea	amers.	Sailing	y vessels	Unrigg	red craft.
CUSTOMS DISTRICTS.	Number.	Tonuage.	Number.	Tonnage.	Number.	Tonnage.	Number.	Tonnage
Total	869	166, 890	197	49, 036	634	108, 200	38	9, 6:
aine	140	65, 691	11	2, 702	129	62, 989		
Passamaquoddy	1	486			1	486		
Machias Frenchman Bay		4, 851 675			16 5	4, 851 673	1	• • • • • • • • • • • • • • • • • • •
Castine	4	61			4	61		
Bangor	6	1,433	1	45	5	1,388		• • • • • • • • • • • • • • • • • • • •
Belfast	12	7, 326		· 	12	7, 326	·	
Waldoboro Wiscasset	25 7	11, 491 1, 107	1	,	25 7	11, 491 1, 107		
Bath	48 11	31, 869 4, 348	7 3	2, 599 58	41 8	29, 270 4, 290		
Kenuebunk	5	2, 044			5	2, 044		
w Hampshire: Portsmouth	2	1, 027	: - -		. 2	1, 027		
ssachusetts		9. 276	9	921	63	8, 355		· • • • • • • • • • • • • • • • • • • •
Newburypor: Gloucester		1.743	ļ		3	1,743 3,524		· · · · · · · · · · · · · · · · · · ·
Salem and Deverly	. 5	3, 524 92	•••••		38 5	92		
Boston and Charlestown Plymouth	15	3, 186	8	894	7	' 2, 292 8		
•	1 :			1			1	
Barnstable	1 2	290 13		'	$\frac{1}{2}$	290 13		
Edgartown New Bedford	. 2	34 363	<u>1</u>	27	$\frac{2}{3}$	34 336		
Fall River.		23		21	i	23		
cde Island	. 17	427	16	107	1	20		
			_				·	-
Providence	. 6	142 231	5 6	142 231				• • • • • • • • • • • • • • • • • • •
Newport	6	54	5	31	, 1	20	'	• • • • • • • • • • • • • • • • • • • •
nneqticut	29	7, 627	9	430	14	4, 567	: 6	2. 63
Stonington	. 8	2, 598	1	115	2	66	5	2,41
New London Middletown	.i 5 i	577 668	2	55	: 3 2	577 400	1	21
New Haven Fairfield		3, 6 63 121	4 2	139 121	7	3, 524	: . 	
w York	129	15, 637	50	8, 564	64	3, 852	15	3, 22
New York	123	14, 049	1 48	7, 070	60	3, 758	15	3, 22
Sag Harbor	6	1, 588	2	1,494	. 4	94		• • • • • • • • • • • • • • • • • • • •
w Jersey		9, 001	2	105	51	7, 0 07	8	
Newark Perth Amboy		$\frac{130}{2,111}$	1 1	59 76	11 1	71 116	8	1.
Little Egg Harbor Great Egg Harbor	2	18		, 	2	18		
Bridgeton	23	3, 600 3, 180		;	13 23	3, 600 3, 180		
Burlington	. 1	22			1	22		· · · · · · · -
unsylvania: * Philadelphia	. 30	30, 336	35	23, 046	11	6, 074	4	3
laware: Delaware	35	12. 557	12	7, 669	23	4, 888		
	147	6, 752	11	1, 536	132	4, 582	4	
ryland		5, 106	10	1, 454 82	55 77	3, 018 1, 564	4	
Baltimore				02	• •	1,50%		
Baltimore	78	1, 646		າມ		90	:	
Baltimore	78 5	1, 646 70	1	38	4	32		
Baltimore	78 5 57	1, 646 70 3, 982	1 8 	746	49	3, 236		
Baltimore Eastern strict of Columbia: Georgetown aginia. Alexandria.	5 5 10	1, 646 70 3, 982 2, 383	1		49	3, 236 2, 210		
Eastern strict of Columbia: Georgetown rginia. Alexandria. Tappahannock Richmond	5 57 10 3 2	1, 646 70 3, 982	1 8 	746	49 7 3 1	3, 236 2, 210 81 78		
Baltimore Eastern strict of Columbia: Georgetown Alexandria. Tappahannock	5 57 10 3 2 1	1, 646 70 3, 982	83	746 173	49 7 3	3, 236 2, 210 81 78		

ATLANTIC COAST AND GULF OF MEXICO.

OOMPARATIVE STATISTICS—Continued.

TABLE 37.—SHIPBUILDING FOR THE 10 YEARS 1880-1889 (ALL VESSELS)—Continued.

	T	otal.	Ste	imers.	Sailing	g vessels.	Unrig	god craft.
CUSTOMS DISTRICTS.	Number.	Tonnage.	Number.	Tonnage.	Number.	Tonnage.	Number.	Tonnage.
forth Carolina	26	734	9	560	17	174		
Albemarie. Pamiico Beaufort Wilmington	10	250 162 169 153	4 2 1 2	218 123 66 153	4 4 9	32 39 103	·	
outh Carolina	8	438	4	348	4	90		
Georgetown Charleston	3 5	226 212	2 2	208 140	1 3	18 72	`. 	
eorgia	. 8	1, 145	. 6	1, 119	2	26		
Savannah Brunswick		1, 127 18	5	1, 101 18	2	26		
lorida	20	545	, 6	272	14	273	н -	'
Fernandina St. John St. Augustine Key West St. Mark Penssola	4 1 6 3	8 209 41 76 33 178	1	209 41	6 3 4	76 33 156		
llabama : Mobilo	ŀ	366	3	335	. 2	31		
dississippi: Pearl River	. 16	600	3	177	13	423		
onisiana	34	452	1	20	33	432	! 	
New Orleans Teche		341 111	<u>-</u> 1	20	25· 8	341 91	!	
Cexas	. 8	167	1	11	6	122	1	, :
Galveston Saluria Brazos de Santiago	. 1	127 6 34	1	11	5 1	116 6	i	
	186	9 5						-
	1 449	100 657	11		il .	1		

Total	643	109, 657	155	44, 017	4%5	59, 332	23	6, 306
ine	87	37, 533	6	3, 417	81	34, 116		
Passamaquoddy	6	992	1	17	5	975	i	
Machiae	12	2, 309	1		12	2, 309		
Frenchman Bay	1	58			-ī :	53		
Castine	2	949			2	949		
Rangor	1	412	ľl		1	412		
Belfast	5	4, 321			5	4. 221		
Widoboto	7	5, 189	1		ž	5, 189	11	
Wiscasset	10	1, 375			10	1, 875		
Bath	31	20, 345	5	8, 400	26	16, 945	li	ļ
Portland and Falmouth	6	1, 174	l	0, 400	20	1. 174		
	1	1, 174		•••••	9 !	1, 1/9	(1	,
SacoKennebunk	5	505				***		¦
Kenneounk	9	200			3 .	505		
assachusetts	45	6, 769	2	21	43	6, 748		:
V	2	1, 659			2	1, 659		<u>;</u> ——-
Newburyport	28	2, 462			28	2, 462	·····	
Gloucester	4	2, 402 39	2	21	20	2, 402 18		
Salem and Beverly	9	2, 589		21	2	2, 589		
Boston and Charlestown New Bedford	9 !	2, 369			9	2, 389 20	il	1
New Deutord	2 .	20			- 4	20		
rede Island	10	204	6	156	4	48		
Providence	2	13	2	13 .			:	
Bristol and Warren	ž :	127	8	107	2	20		
	3	121	i : 1	36	2	20 28		
Newport	3	04	1	30	•	28	1	
nnecticut	31	3, 621	12	529	16	2, 542	3	55
Stonington	10	480	3	129	7	331		
New London	.,	259	11	1.00	;	20	i	23
Middletown	ř.	563	2	33	1	219	2	31
New Haven	ă	2, 150		197	Ė	1. 953	l	
Fairfield		٠, ١٥٠		170	J	1, #33		

COMPARATIVE STATISTICS—Continued.

TABLE 37.—SHIPBUILDING FOR THE 10 YEARS 1880-1889 (ALL VESSELS)—Continued.

	. T	otal.	Stee	amers.	Sailing	vessels.	Unrigg	ed craft.
customs districts.	Number.	Tonnage.	Number.	Tonnage.	Number.	Tonnage.	Number.	Tonnage.
ew York	104	11, 736	46	6, 452	44	942	14	4, 34
New YorkSag Harbor	98	11, 584 152	43	6, 408 44	41 3	834 108	14	4, 34
ow Jersey	. 88	8, 377	5	155	28	3, 222		
Newark Perth Amboy Little Egg Harbor Great Egg Harbor Bridgeton	3 3 3	60 64 86 217 2,757	2	37	1 3 3 3 16	23 64 86 217 2, 757		
Burlington	5	193	3	118	2	75		•••••
ennsylvania : Philadelphia	37	26, 049	24	22, 172	13	3, 877		
elaware : Delaware	. 28	10, 620	15	6, 956	11	2. 889	2	77
aryland	. 117	4, 949	5	1, 074	109	3, 280	3	580
Baltimore Eastern	. 56 61	4, 060 889	5	1,074	48 61	2, 391 889	. 3	590
istrict of Columbia: Georgetown	. 3	 26	2	18	1	8		
irginia	. 26	324	1	18	25	306		
Alexandria. Tappahannock Richmond.	3 2 1	74 23 18	1	18	3 2	74 23		
Yorktown Norfolk and Portsmouth Cherrystone	. 3 . 13	23 132 54		16	3 13 4	23 132 54		
orth Carolina	. 13	.219	2	49	11	170		••••
Albemarie Pamlico Beaufort Wilmington	. 5	· 95 37 72	1	39	2 4 3 2	15 56 37 62	 	
outh Carolina	. 13	675	3	456	10	219		
Georgetown Charleston Beaufort	. 11	16 643 16	3	456	1 8 1	16 187 16		. .
eorgia	. 10	694	3	606	7	88		
Savannah Brunswick	9	651 43	2	563 43	7	88		
lorida	. 42	1,692	15	1, 250	27	442	ļ	·
St. John Koy West	. 10	1, 028 215	9 3	956 118	5 7	72 9 7		
St. Mark A palachicola Pensacola	. 4	77 161 211	2	137 39	7 2 6	77 24 172		
labama: Mobile	. 8	236	3	135	4	55	1	
ississippi : Pearl River	. 8	195	1	75	7	120		
puisiana	. 19	304	2	122	17	182	 	
New Orleans Techo	. 15	261 43	1 1	114	14 3	147 35		
exas:	ĺ	1		!		!	li .	

COMPARATIVE STATISTICS—Continued.

TABLE 37.—SHIPBUILDING FOR THE 10 YEARS 1880-1889 (ALL VESSELS)—Continued: 1886

Number. 491 55 5 2 2 2 5 5 3 7 5 23 1 30 18 22 5 2	57,674 23,408 50 956 103 77 437 2,817 3,608 14,600 292 1,743 1,388	Ster Number 100 7 2 2 2 1 6 6	19,096 942 110 225 315 292	Number. 265 47 5 2 2 2 3 3 7 3 20	Tonnage. 33,116 22,251 50 936 103 77 327 2,817 3,608 263 14,070	Number.	Tonnage. 5,46 21
491 55 5 2 2 2 2 5 5 3 7 5 23 1 30 1 18 2 5	57, 674 23, 408 50 936 103 77 437 2, 817 3, 608 488 14, 600 292 1, 743	100	19, 096 942 110 225 315 292	55 47 5 2 2 2 2 3 3 7 3 7 3 20	33, 116 22, 251 50 936 103 77 327 2, 817 3, 008 263	36	5, 46
55 2 2 2 2 2 5 5 3 7 5 23 1 1 30	23, 408 50 936 103 77 437 2, 817 3, 608 488 14, 600 292 1, 743	2 2 2 1	942 110 225 315 292	47 5 2 2 2 3 3 3 7 7 3 20	22, 251 50 936 103 77 327 2, 817 3, 608 263	1	21
5 2 2 2 2 5 5 3 7 5 23 1 1 30	50 936 103 77 437 2, 817 3, 608 488 14, 660 292 1, 743	2 2 2 1	225 315 292	5 2 2 2 2 3 3 7 7 3 20	50 936 103 77 327 2,817 3,608 263		
2 2 2 5 5 3 7 5 23 1 1 30	956 103 77 437 2,817 3,608 488 14,600 292 1,743	2 2 2 1	225 315 292	2 2 3 3 7 3 20	936 103 77 327 2, 817 3, 608 263		
30 23 1 30 11 18 25	103 77 437 2, 817 3, 608 488 14, 600 292 1, 743	2 2 2 1	225 315 292	2 2 3 3 7 3 20	103 77 327 2, 817 3, 608 263		
3 7 5 23 1 30	2, 817 3, 608 488 14, 600 292 1, 743	2 2 2 1	225 315 292	3 7 3 20	327 2, 817 3, 608 263		
30 1 1 18 2 5	3, 608 488 14, 600 292 1, 743	1	315 292	7 3 20	3, 608 263		21
30 1 1 18 2 5	14, 600 292 1, 743	1	315 292	20	263		21
30 1 18 2 5	1, 743 13	1	. 292				2.
1 18 2 5	13	6	246			Dr.	
18 2 5		11	***	24	1,497		**********
2 5		·····i	22	17	13 1,366		
	13 294		208	2	13 86	********	
	13			2	13		
1	16	1	16	1	6		
4	77	1	52	3	25		
2	12			2	12	1 22-6 5 2 2 2 2 2	*********
i	13			i	13		
22	5, 396	9	3,093	12	2, 155	1	14
5	2, 624	1	2,555	4	69		
1	148					1	14
7	2, 036 846	5	330	2	16	11	
71	6, 357	29	3, 176	28	741	14	2, 44
7Q 1	6, 334 23	29	3, 176	27 1	718 26	14	2, 44
43	2, 86 5	2	265	26	839	15	1,76
	176	1	176				
				3 2			1,70
20	359		20	20	350		
2	99	10	89		10		
27	8, 434	19	6, 118	6	1,861	2	45
7	2, 232	5	2, 150	2	82		
108	3, 752	4	2,065	104	1,687		
59	3, 170	4 []	2, 065	55	1, 105	Manager	
47	560			47	560		
1	59			1	59		
26	836	2	40	24	796		*******
4	616	1		4	616		
	13	ļ'		1	25 13		
3	23			3	23		
4	25	2 		4	25		
11	411	4	334	7	77		
4	45	1	17	3	28		
3 2	144 33	1	128	2 2	16 33		
2	189	2	189				
	1 4 2 1 1 22 1 1 7 7 7 7 7 7 1 18 2 20 2 27 7 108 59 2 47 1 26 4 2 1 3 12 4 11 4 3 2	1 16 4 77 2 12 1 52 1 13 22 5,396 5 2,624 24 242 1 148 7 2,036 7 846 71 6,337 70 6,334 1 23 43 2,865 1 176 18 1,789 2 451 20 389 2 99 27 8,434 7 2,232 108 3,752 59 3,170 2 47 560 1 59 26 836 4 616 2 25 1 13 3 23 12 134 4 25 11 411 4 45 3 144 2 33 2 189	1 16 1 4 77 1 2 152 1 1 13 1 22 5,396 9 5 2,624 1 2 242 1 1 148 1 7 2,036 3 7 2,036 3 7 2,036 3 7 2,036 3 7 2,324 29 1 176 1 18 1,789 1 2 350 1 2 99 1 27 8,434 19 7 2,232 5 108 3,752 4 59 3,170 4 2 25 1 59 1 26 836 2 4 616 1 2 134 2 2 134 2 11 411 4 4 13 144 1 3 144 1 1 3 144 1 1 3 144 1 1	1 16 1 16 4 77 1 52 2 12 1 52 1 13 1 52 1 13 1 52 1 13 1 52 1 13 1 52 1 1 1 2,555 2 242 1 2,555 1 148 1 330 71 6,334 29 3,176 70 6,334 29 3,176 18 1,789 1 176 18 1,789 1 176 18 1,789 1 176 18 1,789 1 176 18 1,789 1 176 18 1,789 1 176 18 1,789 1 176 18 1,789 1 176 18 1,789 1 176 18 1,789 1 176 18 1,789 1 176 18 1,789 1 176 18 1,789 1 176 18 <td< td=""><td>1 16 1 16 4 77 1 52 3 2 12 2 2 2 1 13 1 1 22 5,396 9 3,093 12 1 5 2,624 1 2,555 4 2 1 1 148 2 1 1 1 4 2 1 1 1 4 2 1 <</td><td>1 16 1 16 2 12 2 12 2 12 1 13 1 1 16 2 24 1 2 1 1 2 1 1 1 1 </td><td>1 16 1 16 4 77 1 52 3 25 2 12 1 52 1 13 1 152 1 52 1 13 22 5,396 9 3,093 12 2,155 1 5 2,242 1 2,555 4 69 242 1 1 1,838 208 4 1,828 1 1 22 242 1 1 1,828 1 1 1,828 1 <td< td=""></td<></td></td<>	1 16 1 16 4 77 1 52 3 2 12 2 2 2 1 13 1 1 22 5,396 9 3,093 12 1 5 2,624 1 2,555 4 2 1 1 148 2 1 1 1 4 2 1 1 1 4 2 1 <	1 16 1 16 2 12 2 12 2 12 1 13 1 1 16 2 24 1 2 1 1 2 1 1 1 1	1 16 1 16 4 77 1 52 3 25 2 12 1 52 1 13 1 152 1 52 1 13 22 5,396 9 3,093 12 2,155 1 5 2,242 1 2,555 4 69 242 1 1 1,838 208 4 1,828 1 1 22 242 1 1 1,828 1 1 1,828 1 <td< td=""></td<>

COMPARATIVE STATISTICS—Continued.

TABLE 37.—SHIPBUILDING FOR THE 10 YEARS 1880-1889 (ALL VESSELS)—Continued.

Т	otal.	Ste	amers.	Sailing	z vessels.	Unrigg	ged craft.
Number.	Tonnage.	Number.	Tonnage.	Number.	Tonnage.	Number.	Tonnage.
ul 4 G	. 52			4	52	······	
. 29	582	8	304	21	278		ļ
. 6	176	4	126	2	50		į
. 9	161 100	1 2	33 85	7	128 65		
. 3	122	1	110	1 2	12		
, ,,	1		!	3 ,	20		
. 8	376	3	276	5	100		····
. 13	243	<u> </u>	l	13	243		
	1	!					
17	618	.; <u>1</u>	35	13	140	3	i4
8 9	94 524	·····i	35	. 8 5	94 46	3	`
		ŀ		'		1	1
. 9	142			9	142	ļ	
. 8	136		·	8	136		ı
. •				<u> </u>		!.	
186	97						
538	73 876	123	38 979	371	94 959	44	10.45
			<u> </u>		·		
	. — –	b	728	<u>-</u>		- -	, — 1 2
1 7		 					12
. 2	24			2 .	24		
$egin{array}{cccccccccccccccccccccccccccccccccccc$				2 2	1, 8 69		
		!	0.5	1			
! 7	999	;	35	7	999		
. 17		3	664	14	9, 488	¦	
. 1	10	ļ	29	ī	10		
. 25	4, 983	3	2, 827	22	2, 156	· 	
1	90			1	90		
17		ii	39	17	1, 484		
5	3, 362	2	2, 788	3	574 8		
							_
	109	- 2	52				· · · · · · ·
3	41 69	2	52	3 2	41 16	·	•••••
21	2, 373		138	15	1, 335	. 2	; ,
. 6	187			6	187		
. 5	1, 290	1 2	32 29	2	358	2	
. 3	761			3	761		· · · · · · · · · · · · · · · · · · ·
5	108	1 1	177		29		
147	14, 590	44	6, 172	69	1, 253	. 84	7,
42	2, 532	5	240	32	537	5	1,
. 3	31	1	9	2	22		
15	2, 147 29	4	231	6	161 29	5	1,
i 8	87			8	87		• • • • • • • • • • • • • • • • • • • •
13	230 8			13 1	230 8		
				ı			_
31	23, 189	20	22, 155	9	524	2	=
		!				!	
	Number. 4 29 68 89 33 8 13 17 89 9 81 17 22 22 26 67 17 11 51 17 11 55 1 7 34 21 42 35 52 35 147 42 81 13 11 17 1	4 52 29 582 6 176 8 161 9 100 3 122 3 23 8 376 13 243 17 618 8 94 9 524 9 142 8 136 1 6 1887 538 73,676 48 16,570 1 12 7 190 2 24 2 22 2 1,869 6 1,740 7 999 17 10,152 3 652 1 10 25 4,983 1 990 17 14,484 1 139 5 3,362 1 88 7 109 3 41 4 68 21 2,373 6 1,870 2 29 3 3,362 1 88 7 109 3 41 4 68 21 2,373 6 187 5 1,290 2 3 761 5 106 147 14,590 42 2,532 3 31 15 22,147 15 229 8 8 87 13 230 8 87 13 230 8 87	Number. Tonnage. Number. 4	Number. Tonnage. Number. Tonnage.	Number. Tonnage. Number. Tonnage. Number.	Number. Tonnage. Number. Tonnage. Number. Tonnage. 4 52 4 52 29 582 8 304 21 278 6 176 4 126 2 50 8 161 2 33 7 128 9 100 2 35 7 66 3 122 1 110 3 23 8 376 2 276 5 100 13 243 1 35 13 140 8 94 1 35 5 94 9 142 9 142 8 168 1 35 13 140 8 9 142 9 142 8 168 8 1 6 1 6 1 6 1 6 1 6 1 6 1 6 1 6 1 7 190 6 988 2 2 24 2 24 2 2 24 2 24 2 2 24 2 24 2 2 24 2 24 2 2 24 2 24 2 2 2 2 1 100 6 988 2 1 1 120 6 988 3 168 1 35 5 1708 6 1,740 1 35 5 1709 17 10,152 3 694 14 9,488 3 1652 1 29 1 10 25 4,983 3 2,827 22 2,156 1 1 100 2 52 5 57 3 3 41 4 68 7 109 2 52 5 57 3 4 4 6 7 7 5 147 14,590 14 33 15 1,335 6 187 14,590 14 32 2 2 2 2 2 2 2 2 2 2	Number. Tonnage. Number Tonnage. Number. Tonnage. Number. 4

COMPARATIVE STATISTICS—Continued.

TABLE 37.—SHIPBUILDING FOR THE 10 YEARS 1880-1889 (ALL VESSELS)—Continued.

1887-Continued.

	Te	otal.	Ste	amers.	Sailing	vessels.	1	ged craft.
CUSTOMS DISTRICTS.	Number.	Tonnage.	Number.	Tonnage.	Number.	Tonnage.	3	Tonnag
ryland	65	1,504		637	61	867		,
Baltimore	25	1, 068	-	637	·		·	;
Annapolis	7	1,008	1	637	21 7	431 63	1	1
Bastern	33	373			33		1	
	i		1	-	i		li	:
strict of Columbia: Georgetown	2	42	1		, 2	42		
Georgewan		• • •	ή····································	•••••	. 2	+2	1:	
ginia	27	542	2	276	. 25	266	1	
Alamandata			i		!		 	
Alexandria	1	18 8	1	18	1	8		
Richmond	i	7				8 7		
Yorktown	5	44		·	5	44		l
Norfolk and Portsmouth	11	390	1	258	10	132		
Cherrystone	8	75	ļi	·····	. 8	75		
rth Carolina	21	695	7	579] 14	116		
			-11		i		- :	
Albemarle	2	18	1	9 ·	1 1	. 9	:	
Pamlico Beaufort	11	261 90	2	244	2	17 90	······································	
Wilmington	4	326	4	326			• • • • • • • • • • • • • • • • • • •	
ith Carolina: Churleston	9	460	4	420	5	40		:
	3	298			2			ĺ
orgia		246	1	283	l	15	-	
Savannah	2	15			l 2	15		
Brunswick	. 1	283	. 1	283		• • • • • • • • • • • • • • • • • • • •		
orida	23	433	6	197	17	236	<u> </u>	
St. John	3	75	2	63	1	12		
Kev West	. 5	66	2	03	5	66	h.	
St. Mark	4	51	11		4	51	7	
A palachicola	3	45	1	32	2	13		
Pensacola	8	196	3	102	5	94	,	ļ.
bana: Mobile	5	95	3	80	2	15		
ssissippi:		1		l			1	
Pearl River	11	173			11	173		'
nisiana	26	365	2	65	24	300		
New Orleans	12	188	il i		12	188		!
Teche	14	177	2	65	12	112		
CAB:				-	ľ			!
Galveston	5	85	1	22	4	63		

1888

Total	602	82, 9 51	161	30, 466	333	30, 318	108	22, 16
daine	52	20, 724	9	2, 555	43	18, 169		
Machias Frenchman Bay Castine Belfaat Waldoboro	3 1 3 3 7	88 8 25 3, 166 2, 455			3 1 3 3 7	88 8 25 3, 166 2, 455		
Wiscasset	27 3 3	177 14. 511 219 75	5 2 2	2, 284 204 67	2 22 1 1	177 12, 227 15 8		
assachusetts	55	4, 174	10	1,430	45	2. 744		
Newburyport (floucester Sclem and Beverly Boston and Charlestown Plymouth.	18 1 12 1	92 1, 560 9 2, 358	3 1	81 65 1, 261	1 17 1 7	11 1, 495 9 1, 097 6		
Barnatable	6 2 8 1	43 16 54 5 31	1	23	6 2 8 1	43 16 54 5 8		

COMPARATIVE STATISTICS—Continued.

TABLE 37. -- SHIPBUILDING FOR THE 10 YEARS 1880-1889 (ALL VESSELS) -- Continued

	T	otal.	Stea	amers.	Sailing	vessels.	Unrigg	ged craft.
CUSTOMS DISTRICTS.	Number.	Tonnage.	Number.	Tonnage.	Number.	Tounage,	Number.	Tounage.
Rhodo Island	7	199	6	193	1	6		İ
Providence	5 2	135 64	4 2	· 129 64	1	6		
Connecticut	36	8, 716	j 9	795	15	4, 575	12	3, 34
Stonington	16 6	2, 924 2, 561	2	366 34	5	35 2, 222	9	2, 52
Hartford. New Haven. Fairfield	6	565 2, 447 219	1 1 3	34 148 213	3	13 2, 299 6	2	511
· · · · · · · · · · · · · · · · · · ·	125	12, 920	39	3, 598	36	473	50	8, 84
New York	120 5	12. 778 142	39	3, 598	31 5	331 142	50	8, 84
iew Jersey	74	9, 285	9	570	32	394	33	8, 32
Newark Perth Amboy	24 15	4, 211 4, 374	. 2	109 129	2	26	20 13	4, 070 4, 24
Little Egg Harbor	3 14	184 124	2	177	1 14	7 124		
Bridgeton. Burlington	16 2	296 96	1 2	59 96	15	237 		•••••
ennsylvania : Philadelphia	24	3, 355	17	2, 705	5	324	2	326
olawaro : Dolawaro	26	12, 062	17	11, 006	8	823	1	233
aryland	58	5, 303	7	2, 961	42	1, 259	9	1,063
Baltimore. Annapolis. Eastern	23 2 33	4, 777 37 489	6	2, 866 95	8 2 32	828 37 394	9	1,063
istrict of Columbia: Georgetown	2	65	1	24	1	41		
irginia	23	427	3	. 224	20	203		
Tappahannock Yorktown	3 4	25 43			3	25 43		
Norfolk and Portsmouth. Cherrystone	11 5	313 46	3	224	8 5	89 46		
orth Carolina	31	761	10	507	21	257	`	
Albemarie	6 10	96 354	4	80 290	2 6	16 64		
Beaufort. Wilmington		139 175	1 1	55 82	10 3	84 98		
outh Carolina	10	106	3	43	7	63	·	
Georgetown. Charleston	1 7	8 76	3	43	1 1	8 33		=
Beaufort	2	22		• • • • • • • • • • • • •	. 2	22	:	- -
eorgia	9	3, 181	!' 7 	3, 157	. 1	15 	1 	
Savannab Brunswick		2, 482 699	5 2	2, 45 8 699	1	15	1	
lorida	31	848	10	475	21	373	,	—
St. John St. Augustine. Key West	8 5	330 95	3 1	238 76	5 2 3	92 19		: <i>=</i>
St. Mark. Apalachicola. Pensacola	1	131 6 66 220	1 2	90 57 14	1 1 9	41 6 9 206		
labama :		:	1				ļi.	l
Mobile	7	148	. 2	91	5	57	i. Ii	–
Pearl River	14	190	1		14	190		—
Ouisiana		359	- -	132	11	-		
New Orleans. Teche.	8 5	167 192	2	132	8 3	167 60		
exas: Galveston	5	125			5.	125		

COMPARATIVE STATISTICS—Continued.

TABLE 37.—SHIPBUILDING FOR THE 10 YEARS 1880-1889 (ALL VESSELS)—Continued. 1889

CUSTOMS DISTRICTS.	To	otal.	Stea	mers.	Sailing	g vessels.	Unrig	ged craft.
COSTONIO DISTRICTS.	Number.	Tonnage.	Number.	Tonnage.	Number.	Tonnage.	Number.	Tonnage
Total	612	89, 058	149	41, 308	417	37, 281	46	10, 4
nine	65	21, 765	9	3, 193	56	18, 572		••••
Passamaquoddy		20			2	20		
Machiae Frenchman Bay	8 1	1, 077 21	¦		8	1, 077 21		
Castine	9	85 365	3	365	9	85		
Belfast	1	497			1	497		
Waldoboro Wiscasset	7	3, 635			7	3, 635		· · · · · · · · · · · ·
Bath	28	555 15, 488	5	2, 815	23	555 12, 673		
Portland and Falmouth	2	. 22	· 1	13	1	9		•••••
assachusetts	56	4, 692	. 11	938	45	3, 754		
Newburyport		84	. 1	71	1	13	!	
Gloucester Marbiehead	1	2,574 48	:		29 1	2, 574 48	***************************************	• • • • • • • • • • • • • • • • • • • •
Boston and Charlestown	13	1,827	7	760	6	1, 067	·	•••••
Plymouth Barnstable	1 6	6 39	·····	•••••	1 6	6 39		• • • • • • • • •
Edgartown Fall River	2 2	23 91	1 2	16 91	ĭ	7		
Patt Mivot	! -	"	1	91	1	••••••		• • • • • • • • • • • • • • • • • • • •
ode Island	11	492	5	393	6	99		
Providence Bristol and Warren	5 3	152 239	2 2	115 232	3	37 7		· · · · · · · · · · · ·
Newport	3	101	í	46	1 2	55		• • • • • • • • • • • • • • • • • • • •
nnecticut	42	13, 03 4	8	3, 850	17	4, 607	17	4,
Stonington	19	6, 133	4	3, 495	9	163	6	2
New London	8	1, 401 855	• 1	186 19	3	1, 215	7	••••••
New Haven Fairfield.	10	4, 630 6	2	150	. i	3, 223 6	4	1,
w York	112	9,658	39	4, 166	52	1, 407	21	4,
New York	109	9, 615	39	4, 166	49	1, 384	21	4,
Sag Harbor	3 .	23			3	23		
w Jersey	38	2, 580	11	860	24	865	3	
NewarkPerth Amboy		317					1 1	
Little Egg Harbor	2	1, 365 64	8	777 52	5 1	50 12	J	•
Great Egg Harbor Bridgeton	12 6	83 720			12 6	: 83 720		· · · · · · · · · · · · · · · · · · ·
Burlington	2	31	2	31		· • • • • • • • • • • • • • • • • • • •		• • • • • • • • • • • • • • • • • • • •
nnsylvania : Philadelphia	30	18, 328	19	16, 458	7	1, 264	 	
elaware : Delaware	16	9, 527	8	6, 237	. 7	2, 944	. 1	
	ļ .							
aryland		4, 231	6	2, 188	65	2, 043	1	
Raltimore	22 5	3, 4 61 77	. 6	2, 188	16 5	1, 273 77		
Eastern		693		•••••	44	693		
strict of Columbia: Georgetown	25	372	2	88	23	284		••••
rginia	30	493	2	174	28	319		
Alexandria	i	8		-	1	8	· !-	
Tappahannock Richmond	3	39 141	1	72	3	39 69		
Yorktown	5	48			5	48	,	
No. folk and Portsmouth Cherrystone	8 9	170 87	j	102	7	68 87		· · · · · · · · · · · · · · · · · · ·
orth Carolina	35	635	9	359	i 26	276		
	-	191	3	162	3	29		
Albemarle								
Albemarle Paulice Beaufort	8	202 166	3		5 16	56 166		•••••

COMPARATIVE STATISTICS—Continued.

TABLE 37.—SHIPBUILDING FOR THE 10 YEARS 1880-1889 (ALL VESSELS)—Continued. 1889-Continued.

!	Т	otal.	4	mers.	Sailing	y vessels.	Unrigg	ged craft.
CUSTOMS DISTRICTS.	Number.	Tonnage.	Number.	Tonnage.	Number	Tonnage.	Number.	Tonnage
						, · _		
South Carolina	8	189	2	117	6	72		
Georgetown Charleston	1 7	99 90	. 1	90 27	6	72		
Jeorgia	8	1,630	4	1, 588	4	42	· ·	. • • • • • • • • • • • • • • • • • •
Savannah Brunswick	5 3	789 841	1 3	747 841	4	42		
Florida	20	624	, 5	200	24	1 424		
St. John St. Augustine Key West Tampa St. Mark Pensacola	1 3 14 1 3 7	63 53 219 9 28 252	1 2 2	9 22 1 6 9	1 3 14	63 53 219 6 83		
Alabama : Mobile	4	162	1	116	3	i : 46	ļ	 '••••
Mississippi: Pearl River	10	205	2	139	8	. 66	: 	
Louisiana	12	280	. 3	144	9	136		·
New Orleans Teche	6	89 191	3	144	6 3	89 47		
Pexas	10	161	3	100	7			
Galveston Corpus Christi	8 2	148 13	3	100	5 2	48 13		,

COMPARATIVE STATISTICS—Continued.

TABLE 38.—SHIPBUILDING FOR THE 10 YEARS 1880-1889 (STEAMERS)—NUMBER AND TOWNAGE OF ALL STEAMERS BUILT IN THE CUSTOMS DISTRICTS OF THE ATLANTIC COAST AND GULF OF MEXICO DURING THE 10 YEARS 1880-1889, CLASSIFIED AS PROPELLERS AND SIDE-WHEEL AND STERN-WHEEL STEAMERS.

SUMMARY.

	SUMM.	ARY.							
	All st	camers.	Proj	peller.	- Side-	wheel.	Stern-wheel.		
YEARS AND CUSTOMS DISTRICTS.	Number.	Tonnage.	Number.	Tonnage.	Number.	Tonnage.	Number.	Tonnage.	
Total	1,610	418, 684	1, 291	308, 338	197	98, 364	122	11, 98	
880 R81 882 883 884	141 185 210 189 197	32, 974 41, 394 56, 343 65, 078 49, 036	103 145 169 155 169	23, 964 31, 061 38, 601 55, 343 42, 479	29 25 27 24 11	8, 076 9, 017 16, 622 8, 532 4, 328	9 15 14 10 17	934 1, 316 1, 120 1, 203 2, 229	
885 886 887 889	. 123 . 161	44, 017 19, 096 38, 972 30, 466 41, 308	121 85 99 128 117	30, 655 12, 809 29, 836 17, 601 25, 989	24 8 14 18 17	12, 529 5, 929 8, 420 11, 231 13, 680	10 7 10 15 15	83: 35: 71: 1, 63: 1, 63:	
	186	30							
Total	141	32, 974	103	23, 964	29	8, 076	9	934	
daine	. 12	1. 155	. 9	575	1	1:39	2	41	
Passamaquoddy	1 2 1	33 97 139	1 2	33 97	1	139			
Bath Portland and Falmouth Kennebunk	1 3 4	15 496 375	1 1 4	- 15 55 875	,		2	44	
fassachusetts	. 7	1, 274	4	199	,: . 2	1, 039	1	3	
Newburyport Boston and Charlestown	6	36 1, 238	4	199	2	1,039	1	3	
thode Island.	4	206	4.	206		· · · · · · · · · · · · · · · · · · ·	ļ		
Providence Bristol and Warren	1 3	131 75	1 3	131 75					
Connecticut	. 3	653	2	246	1	407	<u> </u>		
Stonington		527 126	1 1	120 126	1	407			
New York	. 41	3, 842	35	1, 873	6	1,969	i		
New York Sag Harbor		3, 831 11	35	1,873	5 1	J. 958 11			
New Jersey		707	4	86	1	621	il ——		
Perth Amboy Great Egg Harbor Burlington	. 1	677 17 13	2 1 1	56 17 13	1	621		`	
Pennsylvania: Philadelphia	. 28	16, 95 8	27	16, 5 06	1	452	ļ		
Delaware: Delaware	. 12	7, 116	. 5	3, 864	7	3, 252	•	i 	
faryland: Baltimore	· j 7	222	7	222	ļ	•••••			
District of Columbia: Georgetown	. 1	33	1	33	ļ		,j		
rirginia: Norfolk and Portsmouth	1	40	1	40	·	•••••	į	•••••	
North Carolina	. 10	312	· · · · · · · · · · · · · · · · · · ·		7	62	3	25	
Albemarle	. 2	62 167 83			7	62	2	1 6	
South Carolina	. 3	94	1	51	2	43		·····	
Georgetowu	1 2	. 51 43	1	51	2	48			

COMPARATIVE STATISTICS—Continued.

TABLE 38.—SHIPBUILDING FOR THE 10 YEARS 1880-1889 (STEAMERS)—Continued

•	1880-0	ontinueu.					•	
	All at	teamers.	Pro	peller.	Side	wheel.	Sterr	ı-wheel.
e CUSTOMS DISTRICTS.	Number.	Tonnage.	Number.	Tonnage.	Number.	Tonnage.	Number.	- Tonuage
eorgia	2	45	2	45				: · · · · · · · · · · · · · · · · · · ·
Savannah Brunswick	. 1	27 18	1 1	27 18			; 	
lorida:				1				••••••
St. Marklabama:	.; 2	112	1	18		!	1	. •
Mobile	2	113		 	' ii		; 2 	. 1 i
Pearl River	1.	92	<u> </u>		1	92	 	· · · · · · · · · · · · · · · · · · ·
	186	81						
Total	185	41,394	145	31,061	25	9, 017	15	1,31
(aine	. 8	908	6	597	2	311		
Frenchman Bay Bangor	1 2	12 27	1 2	12 27			ļ	
Wiscasset. Bath	2 3	311 558	3	558	2	311		
ermont: Burlington	. 1	370		.	1	370		! !
						;		
assachusetts	7	2, 342	7	2, 342		;	li	
Newburyport Boston and Charlestown	5	23 2, 319	5	23 2,319	[:			
hode Island : Bristol and Warren	5	67	5	67	· · · · · · · · · · · · · · · · · · ·		.]	
onnecticut	. 4	177	3	82	1	95		!
New London New Haven Zairfield	2 1 1	. 102 43 32	1 1	7 43 32	1	95		
New York: New York	. 61	8, 880	58	6, 360	3	2, 520		
iew Jersey	. 11	1, 056	i 11	: : 1,056	j 	1	 	
Newark		35	2	35	!		j	
Perth Amboy Bridgeton	8	982	. 8 1	962				' '
ennsylvania: Philadelphia	. 42	22, 087	39	19, 390	3	2,697	ļ	
elaware: Delâware	. 10	2, 348	6	458	3	1, 700	1	! 1
laryland: Baltimore	. 4	488	4	488		<u></u>		
District of Columbia: Georgetown	. 1	10	1	10	 			1
irginia	1	119	· 2	107	\ \ \ \		1	
Peteraburg Norfolk and Portemouth	1 . 2	43	1 1					· · · · · · · · · · · · · · · · · · ·
orth Carolina.	.i 6	, 122		•	6	122		
Albemarle	.∣ 5	49		-	5	49	7	
Panilico	1	73		·	1	73		
Charleston		547	1		Ì	470		•••••
Brunswick.	. 3	. 615	•••••••		3	615		
lorida	. 8	735	. 1	11	1	56	6	,

St. John
St. Mark
Apaluchicola
Pensacola

COMPARATIVE STATISTICS—Continued.

TABLE 38.—SHIPBUILDING FOR THE 10 YEARS 1880-1889 (STEAMERS)—Continued.

		teamers.		peller.	Side	-wheel.	Stern	ı-wheel.
CUSTOMS DISTRICTS.	Number.	Tonnage.	Number.	Tonnage.	Number.	Tonnage.	Number.	Tonnage.
Alabama: Mobile	4	342	1	16			3	320
Louisiana: Teche	. 3	142	 	, 	1	61	2	. 81
Texas : Galveston	. 2	39	 	: 		ļ 	2	36
	188	 32		·			!!	<u> </u>
Total			169	20 801		16, 622	1	
Maine	ٔ نست	56, 343 1, 909	9	38, 601 1, 258	27	174	3	1, 12
Passamaquoddy	. 2	168		26			1	142
Machias Frenchman Bay	. 2	41 19	i	i3	·····i	19	i	2
Bangor	. 3	177	3	Ì77				20'
Waldoboro Bath Portland and Falmouth	. 3	307 1, 032 165	3	1,032 10	1	155	1	307
Massachusetts: Boston and Charlestown	10	2, 791	7	756	! 3	2, 035	<u> </u>	
Rhode Island	. 5	295	5	295	D			·
Providence	1	61 234	1	61 234				
Connecticut.	. 10	3, 313	8	403	2	2, 910		
Stonington New Haven Fairfield	. 3	2, 931 265 117	1 4 3	43 243 117	1	2, 888 22		······································
New York	. 61	10, 195	57	7, 563	4	2, 632	ļ	,
New YorkSag Harbor	. 57 . 4	9, 518 677	5 <u>4</u> 3	7, 488 75	3 1	2, 030 602		
New Jersey	. 8	536	8	536			<u></u>	i
Newark Perth Amboy Burlington	. 2	220 159 157	3 2 3	220 159 157			j	
Pennsylvania: Philadelphia	. 38	24, 470	37	23, 553	1	917	ii 	
Delaware: Delaware	. 14	7, 671	7	, 2, 033	7	5, 638		·
Maryland	12	2, 661	11	1, 452	1	1, 209		! !
Raltimore Kastern	11	2, 379 282	10 1	1, 170 282	1	1, 209		ļ .
District of Columbia: Georgetown	. 2	58	2	- 58		' :	1	
▼irginia	. 6	255	6	255			i i	
Richmond Norfolk and Portsmouth Cherrystone	1 2 3	13 181 61	1 2 3	181	1		i	
North Carolina	. 9	503	2	205	. 3	34	4	. 26
Albemarle	. 3	34 299 170	2	205	3	34	1 3	9.
South Carolina.	. 3	1. 024		ļ	2	973	11	5.
Georgetown	1 2	51 973			2	973	1	5:
Georgia	. 3	32	. 3	32	<u></u>		ļ	
Sevannah Brunswick	. 2 1	24 8	2	24 8		.l	ľ	

COMPARATIVE STATISTICS—Continued.

TABLE 38.—SHIPBUILDING FOR THE 10 YEARS 1880-1889 (STEAMERS)—Continued.

	All st	eamers.	Pro	peller.	Side-	wheel.	Stern	-wheel.
CUSTOMS DISTRICTS.	Number.	Tonnage.	Number.	Tonnage.	Number.	Tonnage.	Number.	Tonnage.
orida	9	338	6	175	2	100	1	' , 60
St. John Apalachicola.	6 3	226 112	3 3	63 112	2	100] 1	•
ssissippi: Pearl River	1	27	1	27	1 		•••••	
uisiana: Teche	5	265				. 	5	265
	188	ا م	.:	·	<u> </u>		1447	
				. – –				
Total		65, 078	155		24	8, 532	10	1,203
ine	14	7, 153	14	7, 153				
Frenchman Bay Bangor Balfast	1 2 1	20 328 11		328 11				ļ.
Deliast Rath	i	40 6, 754	i 1	40 6, 754	<u></u>	•••••		
								.,
Gloucester	12	4, 351	8	3, 513	3		1	170 170
Boston and Charlestown	10	4, 166	7	3, 498	3	068		
ode Island		170		170				: :
Providence. Bristol and Warren Newport	2 1 1	105 38 27	1 1	105 38 27				
nnecticut	12	2, 224	: . 11	2, 054	1	170		<u> </u>
Stonington	8	2, 079	7	1,909	 1 :	170	· · -	·
New London New Haven Fairfield	1 2	18 109 18	1 2 1	18 109 18			!	
w York: New York	47	6, 337	! 40	2, 368	6	3, 904	! : 1	. 6
w Jorney	6	221	6	221		••••		: ,
Newark	· - 1	30	- 1	30	ļ ļ			·
Perth Amboy. Great Egg Harbor Burlington	3 1 1	. 132 11 48	3 1 1	132 11 48			1	
nnsylvania : Philadelphia	. 41	34, 264	40	33, 853	1	411	!	
laware:	12	5, 933	9	3, 739	3	2, 194		I
ryland: Baltimore	6	1. 359	6	1, 359	<u> </u>			'
ginia	5	501		376	1	125		
Petersburg. Norfolk and Portsmouth	1	37 464	1 3	37 339	'i- 	125		
rth Carolina		359	4		3	19	1	
Albemarle				i— - —	3	19		i
Pamlico Beaufort	1	317 23	3 1	128 23	ļ		1	
ath Carolina	6	980	1	83	4	860	1	, : !
Georgetown Charleston	2	316 664	i	83	1 3	279 581	1	ļ
								; 6
rida	11	1,012	6	270	1	105	•	_
orida		1, 012 370 105	5	270 256	<mark>1</mark>	105	. 2	11

COMPARATIVE STATISTICS—Continued.

TABLE 38.—SHIPBUILDING FOR THE 10 YEARS 1880-1889 (STEAMERS)—Continued.

	All s	teumers.		peller.	Side	-wheel.	Stern-wheel.		
CUSTOMS DISTRICTS.	Number.	ī		• • • • • • • • • • • • • • • • • • • •		Tonnage.	1		
klabama: Mobile	. 1	76	i	' !		76	! !	-	
ouisiana : Teche				10	. 1	10			
exas:	. 2	73	1	12	••••••		1	. 61	
(falveston	2	65 	1_	21			1	4	
	188	3-4.							
Total	197	49, 036	169	42, 479	i ii	4,328	. 17	2, 22	
aine	11	2,702	11	2, 702					
Bangor		45 2,599	1 7	45 2, 599					
Portland and Falmouth	3	. 58	3	58	1		: :		
Boston and Charlestown	. 9	921	- 8	850 823		:	1 1	7	
New Bedford		27	i	27		: 			
hode Island	16	407	16	407				 	
Providence. Bristol and Warren Newport		142 231 34	5 6 5	142 231 34					
nnecticut	9	1 430	7	292	. 2	138			
Stonington	. 1	115			1	115			
Middletown New Haven Pairfield	2 4 2	55 139 121	1 4 2	32 139 121	1	23			
ew York	. 50	8,564	47	8, 172	2	360	1	: · 8	
New York Sag Harbor	48	7,070	45	6, 678	2	360	1	3	
-		1,494		1, 494	1		!!	, ,	
ew Jersey	. 2	135	1	135	-		ļ		
Perth Amboy ennsylvania:	, 1	76	1	76			!'. 	· •••••	
Philadelphia Polaware:	. 35	23, 046	33	22, 090	1	883	i 1	, 7	
Delaware.	12	7, 669	10	5, 827	2	1, 842	: ,` !	ļ	
[aryland		1, 536	10	689	1	847	- -	 	
Baltimore Eastern		1, 454 82	9	607 82	1	847			
istrict of Columbia: Georgetown	. 1	• 38	, 1	38	·····	<u></u>		••••••	
irginia	. 8	746	7	473		· ·	1	27	
A lexandriaRichmond		173 72	3	173 72		: 			
Yorktown. Norfolk and Portsmouth.	. 1	17 484	1 2	17 211				27	
orth Carolina	. 9	560	6	349	2	91	1	12	
Albemarie Pamlico		218 123		127 123	2	91			
Reaufort Wilmington		66 158	1 1	66 33			1	12	
outh Carolina	-	348	3	140	`i		2	20	
GeorgetownCharleston	2 2	208 140	i <u>2</u>	140	1		2	20	

COMPARATIVE STATISTICS—Continued.

TABLE 38.—SHIPBUILDING-FOR THE 10 YEARS 1880-1889 (STEAMERS)-Continued.

	All at	eamers.	Pro	œller.	Side	wheel.	Stern	·wheel.
CUSTOMS DISTRICTS.	Number.	Tonnage.	ļ	Tonnage.	Number.	Tonnage.	Number.	ı
			 		·			l
eorgia	6	1,119	1	18	1	167		·
Savannah Brunswick	5	1.101	1	18	1	167	4	9
lorida	6	272	3	89			3	1
St. John. St. Augustine. Pensacola	1 1 1	209 41 22	2	67 22			2 1	1
labama: Mobile	3	335	;				3	;
ississippi: Pearl River	3	177	3	· 177				
ouisiana: Teche	1	20	1	20				!
exas: Galveston	1	11	1	11				
	186	95		<u> </u>	_!	İ	-	
Total	.155	44, 017	121	30, 655	24	12, 529	10	8
aine	6	3, 417	4	1, 675	2	1,742		
Passamaquoddy	1 5	17 3, 400	1 3	17 1, 6 58	2	1,742		
assachusetta: Salem and Beverly	2	21	2	21				'
hode Island	6	156	6	156			.! 	
Providence Bristol and Warren Newport	2 3 1	13 107 36	2 3 1	13 107 36				
onnecticut	i ; 12	529	11	516	1	13		
Stonington Middletown	3 2	129 83	3 1	120 20	1	13		
Now Haven Fairfield		197 170	3	197 170				
ew York	46	6, 452	38	1, 817	8	4, 635		
New YorkSag Harbor	43 3	6, 408 44	35 3	1, 773 44	8	4, 635		
ew Jorsey	5	155	5	155	ļ	 	ļ	
Newark Burlington	2 3	37 118	2 8	37 118				
ennaylvania : Philadelphia	24	22, 172	23	22 , 032	1	140		
olaware : Delaware	15	6, 956	8	2, 810	7	4, 646		ļ
aryland : Baltimore	5	1,074	5	1, 074				
istrict of Columbia: Georgetown	2	18	2	18	4 	••••	! :	!
irginia: Richmond	1	18	1	18	ļ. Ļ		· 	
orth Carolina	2 -	49	1	10	1	39	·	! !
Pamlico Wilmington		39 10	1	10	1	39		¦
outh Carolina: Charleston	3	456	. 2	162	1	294		
eorgia	3	606	1	43	1	535	1	,
Savannalı	2	563 43			1	535	' 1	

ATLANTIC COAST AND GULF OF MEXICO.

COMPARATIVE STATISTICS—Continued.

TABLE 38.—SHIPBUILDING FOR THE 10 YEARS 1880-1889 (STEAMERS)—Continued. 1885—Continued.

	All steamers.		Pro	peller.	Side-wheel.		Stern-wheel.	
CUSTOMS DISTRICTS.	Number.	Tonnage.	Number.	Tonnage.	Number.	Tonnage.	Number.	Tonnage.
prida	15	1, 250	7	39 3	2	485	6	37:
St. John Key West Apalachicola Pensacola	9 3 2	956 118 137 39	3 2 1 1	273 46 35 39	1	413 72	5	270
a bana:	. 8	. 135) 	46	,, ,		2	8
Beissippi: Pearl River	. 1	75	1	75		•••••		
nisiana	. 2	122	2	122				
New Orleans Teche	: 1	114 8	1 1	114				-
rias: Galveston	. 2	356	1	12			1	3:
	186	<u>i.</u>		<u>l</u>	.1			
	T		I	<u> </u>				
Total	100	19, 096	85	12, 809	8	<u>-</u>	7	38
Be	$-\frac{7}{2}$	942	6	763		179		
Bangor Wincasset Bath Kennebunk	2 2 1	110 225 315 292	1 2 2 1	110 46 815 292	1	179		
assachusetts	. 6	246	5	230	1	16		
Gloucester Boston and Charlestown Fall River	1 4	22 208 16	1 4	22 208	1	16		
bode Island: Bristol and Warren	. 1	52	1	52		•••••		
Onnecticut	. 9	3, 093	7	508	1	2, 555	1	
Stonington New Haven Fairfield	: 1 3 5	2, 555 208 330	2 5	178 330	1	2, 555	1	
New York:	. 29	3, 176	27	1, 490	2	1, 686		
₩ Jersey	. 2	265	2	265			'' '	ļ
Newark	1	176 89	1	176 89				
Tansylvania : Philadelphia	. 19	6, 118	19	6, 118			j	;
Laware: Delaware.	. 5	2, 150	3	674	2	1, 476	·	١
eviaud: Raltimore		2, 065	4	2, 065			`. 	
Arinta: Norfolk and Portsmouth	. 2	40	2	40			¦	
-th Carolina	. 4	334	2	230	1	17	1	ļ
Albemarle. Pamilco Wilmington	1 1 2	17 128 189	1 1	128 102	1	17	i	
>≠ida	8	304	3	63			5	. 2
St. John Key West St. Mark Apalachicola	. 1	126 33 35 110	3	68		•••••	1 1 2 1	1
	1	1	ļi.		1		i	!
bama: Mobile	. 3	276	3	276	·			

COMPARATIVE STATISTICS—Continued.

TABLE 38.—SHIPBUILDING FOR THE 10 YEARS 1880-1889 (STEAMERS)—Continued.

1887

	All nt	eamers.	Pro	peller.	Side	-wheel.	Stern	-wheel.
CUSTOMS DISTRICTS.	Number.	Tonnage.	Number.	Tonuage.	, Number.	Tonnage.	Number.	Tonnage
Total	123	38, 972	99	29, 836	. 14	8, 420	10	1
aine	5	728	<u></u>	402	- 1	326		
Waldoboro	1	35	1	35	ļ	-	!	
Bath Portland and Falmouth	3 1	664	1	338 29]; 1	326		
assachusetts	3	2, 827	2	56	1	2,771		
Salem Boston and Charlestown	1 2	39 2, 788	1	39 17	i	2, 771		
hode Island: Bristol and Warren	2	52	. 2	52	.1		 	
onnecticut		138	3	115	1	23		,
New London	1 2	32 29	1	32	1	23		
Fairfieldew York:	1	77	1	. 77				••••••
New York	44	6, 172	40	4, 161	3	1,981	1	
cw Jersey	!	240	5	240				
Newark Perth Amboy		9 231	1 4	231	 			
ennsylvania: Philadelphia	20	22, 155	18	20, 469	2	1, 686	!	·
elaware: Delaware	10	4, 101		3, 531	1	353	2	:
aryland : Baltimore	: , 4	637	3	87	1	550	<u></u>	.
irginia	2	276	2	276	P	ļ		·
Alexandria	1	18 25 8	1	18 258	II	! !		
orth Carolina	-7	579	. 5	279	 	<u> </u>	2	
Albemarie.	1 2	244	1 2	9 244				
Wilmingtonouth Carolina:	4	326	2	26	ļ		. 2	
Charlestoneorgia :	4	420	2	29	· 2	391		·•••••••••••••••••••••••••••••••••••••
Brunawick	1	283	ï	•••••	1	283		, . i
orida	6		3	109	i ,		3	
St. John Apalachicola Pensacola	2 1 3	63 32 102	21	63 46			. 1	•••••
labama: Mobile	3	: 80	2	24	! . 1	56		
ouisiana : Teche	2	65	, 1	6	, • • • • • • • • • • • • • • • • • • •		. 1	
					1		1	

COMPARATIVE STATISTICS—Continued.

Table 38.—SHIPBUILDING FOR THE 10 YEARS 1880-1889 (STEAMERS)—Continued. 1888

	All st	eamers.	Prop	peller.	Side-	wheel.	Sterr	-wheel.
CUSTOMS DISTRICTS.	Number.	Tonnage.	Number.	Tonnage.	Number.	Tonnage.	Number.	Tonnage.
Total	161	30, 466	128	17, 601	18	11, 231	15	1, 63
aine	9	2, 555	1: 9	2, 555				
Bath Portland and Falmouth		2, 284 204 67	5 2 2	2, 284 204 67				
assachusetts	10	1, 430	 9	550	1	880		
Newburyport. Glouceater Boston and Charlestown. Fall River	3 1 5 1	81 65 1, 261 23	3 1 4 1	81 65 381 23	1	880		
hode Island	6	193	6	193				
Providence	4 2	129 64	4 2	129 64				
onnecticut	9	795	6	403	2	244	1	14
Stonington New London Hartford New Haven	2 1 2 1	366 34 34 148	1 1 1	137 34 19	1	229 15	1	14
Fairfield ew York: New York	39	213 3, 598	36	213 2, 104	3	1, 494		
ew Jersey	9	570	9	570	ļ			
Newark Perth Ambov Little Egg Harbor Bridgeton Burlington	2 2	109 129 177 59 96	2 2 2 2 1 1 2	109 129 177 59 96				
ennsylvania: Philadelphia	17	2, 705	17	2, 705	- -	 		
lelaware: Delaware	17	11,006	13	6, 641	4	4, 365		
[aryland		2, 961	4	546	2	2,319	1	
Raltimore	6	2, 866 95	3	451 95	2	2, 319	1	8
district of Columbia: Georgetown	1	· 24	1	24	ļ	! !	 	
irginia: Norfolk and Portsmouth	3	224	3	224	ļ			
orth Carolina	10	507	6	346	· 2	24	2	18
Albemarle Pamiloo Beaufort Wilmington	1	80 290 55 82	4	56 290	2	24	1	5
onth Carolina: Charleston	3	43	2	24	ļ	ļ	1	1
corgia	7	3, 157	2	607	3	1,851	2	66
Savannah	5 2	2, 458 699	2	607	3	1, 851	2	66
Norida.	10	475	5	109			5	36
8t. John St. Augustine Key West Apalachicola Pensacola	1 2	238 76 90 57 14	2 2	53 42			1 1 1 2	18 8 9 5
Rahamā:	1	1	1			1		

COMPARATIVE STATISTICS—Continued.

TABLE 38.—SHIPBUILDING FOR THE 10 YEARS 1880-1889 (STEAMERS)—Continued.

OHER WAS DISTRICT.	All st	eamers.	Pro	peller.	Side	wheel.	Sterz	-wheel.
CUSTOMS DISTRICTS.	Number.	Tonnage.	Number.	Tonnage.	Number.	Tonnage.	Number.	Tonnage.
Total	149	41, 308	. 117	25, 989	17	13, 680	15	1, 60
aine	9	3, 193	8	1,541	1	1, 652		
Bangor Bath Portland and Falmouth	3 5 1	365 2, 815 13	3 4 1	365 1, 163 13	1	1, 652		
assachusetts	11	938	11	938				•
Newburyport Boston and Charlestown Edgartown Fall River	1 7 1 2	71 760 16 91	1 7 1 2	71 760 16 91				
hode Island	5	393	4	349		ļ 	1	
Providence Bristol and Warren Newport	2 2 1	115 232 46	1 2 1	71 232 46			1	
onnecticut	8	3, 850	6	414	2	3, 436	,	
Stonington	4	3, 495	3	95	1	3,400		
New London	1 1	186 19	1 1	186 19				
New Haven	2	150	1	114	1	36		
New York	39	4, 166	38	4, 106	1	60		•••••
Perth Amboy	8		11 8	86 0 777				
Little Egg Harbor Burlington	1 2	52 31	1 2	52 31		••••••		••••••
nnsylvania: Philadelphia	19	16, 458	18	11, 864	1	4, 594	:	
elaware: Delaware	8	6, 237	5	4, 764	2	1,308	. 1	
aryland: Baltimore	6	2, 188	5	601	1	2, 587		! '
strict of Columbia: Georgetown	2	88	2	88				
rginia	2	174	2	174		•		
Richmond	1	72 102	1 1	72 102				
orth Carolina	9	359	3	113	3 .	47	3	
Albemarle	3	162		97	2	19	1	
Pamlico Wilmington	3	146 51	1	16	1	28	1	
uth Carolina	2	117	1		1	90		
Georgetown Charleston	1	90 27	1	27	1	90		
orgia	4	1, 588	1	11	 ; 1	747	2	
Savannah Brunswick	1 3	747 841	i	11	1	747	2	
orida	5	200			1	9	4	
Tampa St. Mark Pensacola	1 2 2	9 22 169			1	9	2 2	
labama: Mobile	1	116					1	
ississippi: Pearl River	. 2.,	139	2	139	: 			
onisiana: Teche	3	144			1	64	2	
	- 1					'		

85, 175

20,000

CONGRESSIONAL APPROPRIATIONS.

TABLE 39.—CONGRESSIONAL APPROPRIATIONS FOR THE SURVEY, IMPROVEMENT, AND MAINTENANCE OF THE RIVERS AND HARBORS OF THE ATLANTIC COAST AND GULF OF MEXICO, BY PERIODS FROM THE EARLIEST DATE OF APPROPRIATION TO 1890, INCLUSIVE, BY LOCALITIES.

SUMMARY

		- 			
LOCALITIES.	Date of carliest appropriation.	Appropriations up to and includ- ing 1879.	Appropriations from 1880 to 1889, inclusive.	Appropriations September 19, 1890.	Total appropria- tions to date.
Total	1821	\$37, 480, 428	\$33, 293, 406	\$8,808,850	\$79, 582, 684
Maino New Hampshire Massachusetts Rhodo Island	1836 1824	1, 305, 884 105, 000 2, 657, 999 577, 700	766, 250 214, 500 1, 668, 750 746, 250	418, 500 88, 000 506, 560 215, 000	2, 490, 634 407, 500 4, 833, 249 1, 538, 950
Connecticut	1821	1, 252, 777 4, 304, 568	1, 185, 550 3, 881, 000	325, 000	2, 763, 327 9, 285, 568
New Jersey Pennay Ivania Delawaro. Maryland	1829 1826	551, 063 351, 100 3, 168, 665 1, 355, 318	1, 166, 975 344, 750 814, 500 1, 750, 775	175, 000 50, 000 128, 100 407, 500	1, 893, 038 745, 850 4, 111, 265 3, 513, 593
Diatrict of Columbia	1833 1829 1826 1836 1826	501, 500 1, 292, 580 1, 919, 059 550, 000 1, 120, 597	1, 825, 000 1, 694, 800 1, 910, 250 1, 895, 000 1, 285, 609	280, 000 508, 000 440, 000 583, 000 512, 500	2, 606, 500 3, 495, 380 4, 269, 309 3, 023, 000 2, 918, 706
Florids (on the Atlantic). Florids (on the Gulf of Mexico) Georgis (g).	1828	146, 570 230, 280 23, 300	982, 000 579, 500 4, 000	240, 500 135, 500	1, 369, 070 945, 280 27, 360
Alabama Mississippi	1827	821, 752 76, 400	1, 301, 750 311, 125	524, 000 60, 000	2, 647, 502 447, 525
Louisiana Texas Miscellaneous General appropriations	1852 1828	7, 767, 489 1, 247, 200 1, 321, 500 4, 832, 127	\$91, 647 4, 342, 500 8, 772, 350 258, 575	220, 000 893, 150 998, 600	8, 579, 136 6, 482, 850 6, 092, 450 5, 090, 702
AT	FLANTIC C	COAST.			
MAINE	1826	1, 305, 884	766, 250	418, 500	2, 190, 634
Bagaduce river	1890			4,000	4,000
Bar Harbor (breakwater)	1888		50, 000	50, C00	100,000
Bath gut	1870 1880 1881	33, 500	7, 000 5, 000		33, 500 7, 000 5, 000
Total for Bath gut	1870	33, 500	12, 000		45, 500
Belfast harbor	1826 1880 1890	23, 200	3,000	10, 600	23, 200 3, 000 10, 000
Total for Belfast harbor	1826	23, 200	3, 000	10,000	36, 200
Camden harbor	1873 1888 1890	30, 100	5,000	6,000	30, 000 5, 000 6, 00 0
Total for Camden harbor	1873	30, 000	5, 000	6,000	41,000
Cathance river	1880 1881 1892		10, 000 6, 000 5, 000		10. 000 6, 000 5, 000
Total for Cathance river	1880	!	21,000		21,000
Cobecook bay	1836	5, 300	***************************************	.	5, 300
Harrissocket river	i .			. 10,000	10,000
Kennebec river	1827 1890	145, 520		50,000	145, 520 50, 00 0
Total for Kennebec river	1827	145, 520	, 	50, 000	195, 520
Kennebunk river	1829 1880 1881 1893	61, 175	2, 000 2, 000	20,000	61, 175 2, 000 2, 000 20, 000

61, 175

1820

a Rivers emptying into other rivers which flow into the Gulf of Mexico.

Total for Kennebunk river.....

CONGRESSIONAL APPROPRIATIONS—Continued.

TABLE 39.—APPROPRIATIONS FOR ATLANTIC COAST AND GULF OF MEXICO—Continued.

ATLANTIC COAST—Continued.

LOCALITIES.	Date of earliest appropria- tion.	Appropriations up to and includ- ing 1879.	Appropriations from 1880 to 1889, inclusive.	Appropriations September 19, 1890.	Total appropr tions to date
INE—Continued.		<u>. </u>			
Lubec channel	1879 1880	a\$10,000	40 0 000		\$10,
	1881		\$20, 000 45, 000		20. 45.
	1882		20, 000		20.
	1884 1886		10, 000 10, 000		10, 10,
	1888		20,000		20,
Total for Lubec channel	1879	10, 000	125, 000		135,
Machias river	1873	32,000			52,
Matinicus island	1873	1,000			1,
	· .·	1,000	••••••	ı	-,
Mooseabec bar	1881 1882		10, 000 10, 000	• • • • • • • • • • • • • • • • • • • •	10, 1 0 ,
	1884		10,000		10,
•	1886		10, 000		10,
	1888 1890		15, 000	\$15,000	15, 15,
Total for Mooseabec bar	1881		55, 000	15, 000	70,
			55,555		
Narraguagus river	1871 1886	22,000	20, 000	'••••••	22 , 20,
	1890		20,000	7,500	7.
Total for Narraguagus river	1871	22, 000	20, 000	7, 500	49,
Owls Head harbor	1836	17, 902	•••••	•••••	17,
Penobacot river	1829 1890	198, 300		25, 000	198, 25,
Total for Penobscot river	1829	198, 300		25, 000	223,
Piscataqua river	1826	8,510			8,5
Portland harbor	1000	051 457			471 4
Fortiand narbor	1836 1881	351, 477	20,000		351, 4 20, 0
•	1882		35, 000		33,0
	1884 1888	•••••	60, 000 40, 000		60, 0 40. 0
	1890			40, 000	40,0
Portland harbor (Back cove)	1886 18 90		26, 250	25, 000	24, 2 25, 0
Total for Portland harbor	1836	351, 477	181, 250	65,000	507, 73
			101, 200		
Pleasant river	1890	· 	•	3, 500	3, 50
m	1001			!	10,00
Richmond harbor	1881 1882	 	10, 000 10, 000		10,00
Total for Richmond harbor					
Total for Richmond harbor	1882 1881 1852	114, 000	10,000		20,00
Total for Richmond harbor	1882 1881	114,000	10,000		20, 00 114, 00 3, 01
Total for Richmond harbor	1882 1881 1852 1880		20,000		20, 09 21, 09 114, 00 3, 00 3, 00 123, 00
Total for Richmond harbor Richmond island Total for Richmond island	1882 1881 1852 1880 1881 1852		20,000 20,000 3,000 3,000	5.000	20, 65 114, 60 3, 60 3, 60 123, 60
Total for Richmond harbor Richmond island Total for Richmond island	1882 1881 1852 1880 1881 1852		20, 000 3, 006 3, 000 6, 000	5, 000	20, 00 114, 00 2, 01 3, 00 123, 00 10, 00 5, 0
Total for Richmond harbor Richmond island Total for Richmond island Rockport harbor Total for Rockport harbor	1882 1881 1852 1880 1881 1852 1886 1890		10,000 20,000 3,000 3,000 6,000 10,000		20, 00 111, 00 2, 01 3, 00 123, 00 14, 00 5, 0
Total for Richmond harbor Richmond island Total for Richmond island Rockport harbor Total for Rockport harbor	1882 1881 1852 1880 1881 1852 1886 1890 1886		10,000 20,000 3,000 6,000 10,000 10,000 20,000 40,000		20, 09 114, 00 2, 07 2, 00 123, 00 12, 00 13, 0 20, 40,
Total for Richmond harbor Richmond island Total for Richmond island Rockport harbor Total for Rockport harbor	1882 1881 1852 1880 1881 1852 1886 1890 1886		10,000 20,000 3,000 3,000 6,000 10,000 10,000 20,000 40,000 40,000		20, 00 111, 00 2, 01 3, 00 123, 00 10, 00 5, 0
Richmond island Total for Richmond island Rockport harbor	1882 1881 1852 1880 1881 1852 1886 1890 1886 1880 1882 1884 1886 1888		10,000 20,000 3,000 6,000 10,000 10,000 20,000 40,000		20, 09 114, 60 2, 61 3, 61 12, 60 12, 60 5, 0 13, 6 20, 6
Total for Richmond harbor Richmond island Total for Richmond island Rockport harbor Total for Rockport harbor	1882 1881 1852 1880 1881 1852 1886 1890 1886 1880 1882 1884 1884		10,000 20,000 3,000 3,000 6,000 10,000 10,000 20,000 40,000 40,000 22,500		20, 00 111, 00 3, 00 3, 00 123, 00 13, 00 5, 0 15, 0 40, 40, 40, 40, 40, 40, 40, 40, 40, 40,

a In addition to the unexpended balance of the St. Croix river appropriation. See St. Croix river.

CONGRESSIONAL APPROPRIATIONS—Continued.

TABLE 89.—APPROPRIATIONS FOR ATLANTIC COAST AND GULF OF MEXICO—Continued.

LOCALITIES.	Date of earliest appropriation.	Appropriations up to and includ- ing 1879.	Appropriations from 1880 to 1889, inclusive.	Appropriations September 19, 1890.	Total appropriations to date.
AINE—Continued. Royal river	1871	\$20,000			\$20,000
	1882		\$10,000		10,000
Total for Royal river.	1871	20, 000	10, 000		30, 000
Saco river breakwater	1866 1884	40,000	15, 000		40, 000
	1886		12, 500		15, 00 0 12, 50 0
	1888 1890		12, 500	\$ 65, 000	12, 500 65, 000
Total for Saco river breakwater	1866	40,000	40,000	65,000	145,000
Saco river	1827	87, 000			87, 000
	1886 1888		12, 500 10, 000		12, 500 10, 000
Total for Saco river	1827	87, 000	22,500		109, 500
				. !	
St. Croix river	1867 1881	a35, 000	4,000		35, 000 4, 000
	1890			. 635,000	35, 000
Total for St. Croix river	1867	35, 000	4, 000	35, 000	74, 000
Sullivan river	1871	35, 000		:	35,000
Union river	1870	30, 000			30, 000
Wells harbor	1872	5, 000			5,000
York harbor	1886 1890		25, 000	10,000	25, 00 10, 00
Total for York harbor	1886		25, 000	10,000	35,000
EW HAMPSHIRE	1836	105, 000	214, 500	88,000	407, 50
Belamy river	1888		10,000	-	10,000
Total for Belamy river	1890		10,000	10,000	10,000
·			10,000	10, 000	20,00
Cocheco river	1836 1890	95, 000		25,000	95, 00 25, 00
Total for Cocheco rivor.	1836	95, 000		25, 000	120,00
Exeter river	1880 1881		20,000 15,000		20, 00 15, 00
Total for Exeter river	1880		35,000		35, 00
Lamprey river	1881		20,000		20, 00
Little harbor (harbor of refuge)	1886		30,000		30,00
	1890			40, 000	40,00
Total for Little harbor	1886		30,000	40,000	70,00
Portamonth harbor	1879 1880	10,000	25, 000		10,00
	1881		20,000		25, 00 20, 00
	1882 1884		17, 000 20, 000		17, 00 20, 00
	1886 1890		30,000	13, 000	30, 00 13, 00
Total for Portsmouth harbor	1879	10, 000	112,000	13, 000	135, 00
Winnepesaukee lake	1880 1881		5,000 2,500		5, 00 2, 5 0
	1001		2,000		· 2,50

 $[\]alpha$ Of this amount, \$1,000 only were expended, the balance being transferred to the Lubec channel work March 3, 1879. b Conditional on the Dominion of Canada expending a like sum.

CONGRESSIONAL APPROPRIATIONS—Continued.

TABLE 39.—APPROPRIATIONS FOR ATLANTIC COAST AND GULF OF MEXICO—Continued.

LOCALITIES.	Date of earliest appropriation.	Appropriations up to and includ- ing 1879.	Appropriations from 1880 to 1889, inclusive.	Appropriations September 19, 1890.	Total appropris
ASSACHUSETTS	1824	\$2, 657, 999	\$1,668,750	\$506, 500	\$4, 833, 24
Bass river.	1829	\$20, 150		:	20, 15
Boston harbor.	1825	1, 701, 526	1		1, 701, 52
Bonton narour	1880	1, 701, 520	75, 000		75, 00
	1881 1882		100, 000 96, 500		100, 00 96, 5 0
	1884 1886		5, 000 67, 250		5, 00
•	1888		125, 000		67, 25 125, 00
· ·	1890			150, 000	150, 00
Total for Boston harbor	1825	1, 701, 526	468, 750	150,000	2, 320, 27
Duxbury harbor	1872	20, 000			20,00
East Dennis breakwater	1852	1,500			1, 50
Edgartown harbor	1826	23, 000			23, 0
	1890			2, 000	2,0
Total for Edgartown harbor	1826	23,000		2, 000	25, 00
Fall River harbor	1874	30,000	İ	1	- 30,0
Gloucester harbor	1872	10, 000	1		10, 0
Quality and the same and the sa	1886	10,000	5, 000	;	5, 00
	1888 1890		10,000	15, 000	10, 00 15, 00
Total for Gloucester harbor	1872	10, 000	15, 000	15,000	40, 00
Hyannis harbor	1827	. 118, 432			118, 4
aryannia marout	1881	. 110, 452	5, 000		5, 0
i	1886 1890		20, 000	8,000	20 , 0 8, 0
Total for Hyannis harbor	1827	118, 432	25, 000	8, 000	151, 4
Ipawich river	1886		5, 000		5, 0
Lynn harbor	1882		76, 000		76, 0
-	1890			15, 000	15, 0
Total for Lynn harbor	1882	l	76, 000	15,000	91, 00
Malden river	1882		10,000		10, 0
Manchester harbor	1886	['	2, 500		2,5
Total for Manchester harbor	1890 1886	<u> </u>	9 500	5,000	5, 0
	1000		2, 500	3,000	1, 00
Marblehead harbor	1825	900			. 9
Merrimac river	1828 1880	197, 367	10 000	······	197, 3 12, 0
	1881		12, 000 18, 000		18, 00
	1884 1890		3, 500	10,000	3, 50 10, 00
Total for Merrimac river	1828	197, 367	33, 500	10, 000	240, 8
Nantucket harbor	1000	45.005	1		48.00
Santucket narbor	1828 1880	45, 835	50, 000		45, 8 50, 0
	1881 1884	•••••	50, 000 10, 000		50, 00 10, 00
	1886		15, 000		15, 00
	1889 1890	•••••	20, 000	25, 000	20, 00 25, 00
Total for Nantucket harbor	1828	45, 835	145, 000	25, 000	215, 8
New Bedford harbor	1836	37, 691			37, G
	1888 1890		10, 000	10,000	10, 00 10, 00
Total for New Bedford harbor	1836	37, 691	10, 000	10, 000	57, G
Newburyport harbor	1880		. 50,000		50, 0
	1881	• • • • • • • • • • • • • • • • • • • •	120, 000		120, 0
	1886 1888		37, 500 25, 000		37, 54 25, 0
	1890			25, 000	25,0
Total for Newburyport harbor	1880		232, 500	25, 000	257, 50

CONGRESSIONAL APPROPRIATIONS—Continued.

TABLE 39.—APPROPRIATIONS FOR ATLANTIC COAST AND GULF OF MEXICO-Continued.

LOCALITIES.	Date of earliest appropriation.	Appropriations up to and including 1879.	Appropriations from 1880 to 1889, inclusive.	Appropriations September 19, 1890.	Total appropriations to date.
SSACHUSETTS—Continued.		; 1			
Plymouth beach and harbor	1824	\$196, 267			\$106, 2
	1880		\$20,000		. 20,0
	1882 1886		14, 000 6, 000	·····	14, 0 6, 0
	1888		6, 000		6,0
	1890			\$8,000	8,0
Total for Plymouth beach and harbor	1824	106, 267	46,000	8, 000	160, 2
owow river	1888		3,000		3, 0
	1890		·	5,000	5, (
Total for Powow river	. 1888		. 3,000	5, 000	: 8, (
Provincetown harbor	. 1826	121, 418	 		121,
	1880		500		
	1881		10,000		10,0
	1884		2,000		2, 0
	1886 1888		3, 000 7, 000	1	3, 0 7, 0
	1890		1,000	7, 500	7;
Total for Provincetown harbor	1	121, 418	22, 500	7,500	151,
	•		22,000	1,000	
alem harb or	. 1873 1890	25, 000		14,000	25, 0 14, 0
Total for Salem harbor	. 1873	25, 000		14,000	39,
andy bay breakwater	. 1829	69, 233	 		69,
	1884 18 9 0		800, 000	150, 000	300, 150,
Total for Sandy bay breakwater	. 1829	69, 233	300,000	150,000	519,
cituate harbor		1, 180		1 	1,
	1880		7,500		7.
	1881 18 9 0		10, 000	10,000	10, 10,
Total for Scituate harbor.	1829	1, 180	17, 500	10,000	28,
stage harbor	1890		1	5,000	5,
Caunton river	1870	66, 000	 		66. (
	1880		17, 500		17,
	1881		50,000		50,
	1884 1890		26, 500	7 000	26,
mala managara	i		04.000	7,000	7,
Total for Taunton river	. 1870 !	66, 000	; 91,000 	7,000	167.
'ineyard Haven harbor	. 1888 1830		- 25, 000	10, 000	25, 10,
Total for Vineyard Haven harbor	1888		25, 000	10,000	35,
Vareham harbor	1872	40, 000			40,
	1881		10,000	'	10,
	1882		5, 000	,	5, 1 0,
	1884 1886		10, 000 15, 000		15.
	1888 1890		4, 000	5, 000	4. 5,
Total for Wareham harbor	1872	40,000	44,000	5, 000	89,
V-llffeet harbor	. 1872	5, 000		4 000	5.
Total for Wallfaut harbon	1890			4,000	4.
Total for Wellflort harbor	1872	5,000		4,000	9. i
Westport harbor	1886 1890		1,000	1,000	1. 1,
Total for Westport harbor	1886	·	1,000	1,000	2,
Weymouth river	. 1890			10, 000	10,
Winthrop harbor	1886		1,000		1,
	1890		4,000 1	5,000	5,
Total for Winthrop harbor	. 1886	: 	1,000	5,000	6,

${\bf CONGRESSIONAL\ APPROPRIATIONS-Continued.}$

TABLE 39.—APPROPRIATIONS FOR ATLANTIC COAST AND GULF OF MEXICO—Continued.

-1				
1852	\$17,500	AFO 000		\$17,500
				52, 000 25, 000
		14, 500		14, 500
i		24,000		2,110
1852	17, 500	91, 500		109, 000
1827	577, 700	746, 250	\$215,000	1, 538, 950
1				
	285, 000	minor minor		285, 000
				6, 000 19, 000
	*****************	15, 000	7	15, 000
1886		20, 000	***************	20,000
1888		15, 000	***************************************	15, 000
1890			15,000	15, 000
1870	285, 000	- 75,000	15,000	375, 000
1827	28, 200			28, 200
1890			5, 500	5, 500
	:	, 	•	
- 1890	 		2,000	2,000
	28, 500	 	· · • • • • • • • • • • • • • • • • • •	28, 500
1881		92, 000	10.500	92,000
1890			12, 500	12, 500
1873	28, 500	92,000	12, 500	133, 000
ľ				
	52, 000	115 000	i	52, 600
		115,000	30,000	115, 000 30, 000
1000				
1867	52, 000	115, 000	30, 000	197, 000
. 1890		<u></u>	75, 000	75, 000
		* 000	•	·
		5,000		5, 000
1890	• • • • • • • • • • • • • • • • • • • •	• • • • • • • • • • • • • • • • • • • •	25,000	25, 000
1852	174 000			174, 000
	114,000	60, 000		60,000
1881		60, 000		60,000
1882	•••••	125, 000		125, 000
1898		56,000 56,250		85, 000 56, 25 0
				68, 600
1890			50, 000	50,000
- 185?	174,000	454, 250	50, 000	678, 250
1000	1	E 000		5 000
1880		5,000		5, 000
. 1873	10, 000			10, 000
1821	1, 252, 777	1, 185, 550	325,000	2, 763, 327
. 1884	i	35, 000		35, 000
1890	,		5,000	5, 000
1884	j	35, 000	5, 000	40, 000
	i	•		
1836	175, 000	***************************************	' -	175, 000
				10, 000 10, 000
1882		10, 000		10.000
1884	1	5,000		5, 000
1886	,			5, 000 20, 000 10, 000
1888	· · · · · · · · · · · · · · · · · · ·	10, 000	20, 000	20, 000
. 1836	175, 000	65, 000	20, 000	260, 000
1			i I	
. 1836	1, 000	· · · · · · · · · · · · · · · · · · ·		1,090
. 1836 . 1882 1890	1,000	3, 000	3, 500	1, 099 3, 000 3, 500
	1882 1884 1886 1852 1852 1870 1880 1880 1880 1886 1888 1890 1870 1870 1890 1873 1881 1890 1873 1881 1890 1867 1881 1890 1867 1881 1890 1881 1890 1882 1883 1889 1889 1881 1889 1881 1886 1888 1890	1882	1884	1882

${\bf CONGRESSIONAL~APPROPRIATIO\grave{N}S-Continued.}$

TABLE 89.—APPROPRIATIONS FOR ATLANTIC COAST AND GULF OF MEXICO—Continued.

LOCALITIES.	Date of earliest appropriation.	Appropriations up to and includ- ing 1879.	Appropriations from 1880 to 1889, inclusive.	Appropriations September 19, 1890.	Total appropr tions to date
NNECTICUT—Continued.					
Connecticut river	1870	\$40,000	· • • • • • • • • • • • • • • • • • • •	ļ	\$40,
Connecticut river above Hartford	1829 1880	65, 130	\$15,000	·	65, 15,
Connecticut river below Hartford	1871	195, 000	φ1.0, 000		195,
•	1880		10, 000		10,
	1881	· · · · · · · · · · · · · · · · · · ·	30,000		30,
	1882 1884		45, 000 35, 000		45, 35,
•	1886	1	26, 250		26,
	1888	¦	10,000		10,
	1890	!	······································	\$12,500	12,
Total for Connecticut river	1829	300, 130	171, 250	12,500	483,
Duck Island harbor	1890			25, 000	25,
Five Mile river	1888		5, 000	5, 000	10,
<u></u>					
Housatonic river	1870 1880	60, 000	9 000		60,
:	1881		2, 000 2, 000		2, 2,
	1882		2,000		2,
	1884		2, 500	····	. 2,
·	1886 1888		5, 000 35, 000	·	5. 25
	1890		35, 000	35, 000	35. 35
Total for Housatonic river	1870	60, 000	48, 500	35, 000	143,
Milford harbor	1874	28, 000			28.
	1880	20,000	5, 000		5
	1882		5, 000		5,
	1888		5, 000		5
	1890			2,500	2
Total for Milford harbor	1874	28, 000	15, 000	2, 500	' 4 5
Mill river	1829	10, 587	••••••••••••	j	10,
Mystic river	1890	; ;		10,000	10,
New Haven breakwater	1879	30, 000			30,
TARTON DIOMENTALVI	1880	00,000	30,000		30.
	1881		60, 000		60
	1882		60, 000		60
_	1884 1886		40, 000		40
'	1888	•••••	75, 000 75, 000		75 75
	1890			120, 000	120
Total for New Haven breakwater	1879	30,000	340, 000	120,000	490
New Haven harbor	1872	171,000			171
!	1880		15, 000	}	15
	1881 1882		15, 000	Į	15 30
!	1884		30, 000 10, 000		10
	1886		20, 000		20
	1888 1890		15, 000	15, 000	15 15
	1872	171,000	105, 000	15,000	291
Total for New Haven harbor					19
Total for New Haven harbor	1000		10 000		. 19
New London	1880		19, 800		1
New London	1829	53, 080			i 53
New London	1829 1880	53, 080	5, 000		، 53 5
New London	1829 1880 1881	53, 080	5, 000 5, 000		53 5 75
New London	1829 1880 1881 1882 1884	53, 080	5, 000 5, 000 5, 000 5, 000		i 53 5 3 5 5 5
New London	1829 1880 1881 1882 1884 1886	53,090	5, 000 5, 000 5, 000 5, 000 3, 000		, 53 5 5 5 5 3
New London	1829 1880 1881 1882 1884	53, 080	5, 000 5, 000 5, 000 5, 000	4,000	53 5 5 5 5 5 5 28
New London	1829 1890 1881 1882 1884 1886	53, 080	5, 000 5, 000 5, 000 5, 000 3, 000	4,000	53 5 5 5 5 5 3 28
New London Norwalk harbor. Total for Norwalk harbor	1829 1880 1881 1882 1884 1886 1888		5, 000 5, 000 5, 000 5, 000 3, 000 28, 000		53 55 55 5 5 3 28 4
New London Norwalk harbor Total for Norwalk harbor Saybrook harbor	1829 1890 1881 1882 1884 1896 1888 1890 1829	53, 080	5, 000 5, 000 5, 000 5, 000 3, 000 28, 000		1 53 5 5 5 5 5 3 28 4 108
New London Norwalk harbor Total for Norwalk harbor	1829 1880 1881 1882 1884 1886 1888 1890 1829	53, 080	5, 000 5, 000 5, 000 5, 000 3, 000 28, 000		1 53, 55, 5, 5, 5, 3, 28, 4
New London Norwalk harbor Total for Norwalk harbor Saybrook harbor	1829 1880 1881 1881 1882 1884 1886 1890 1829	53, 080	5, 000 5, 000 5, 000 5, 000 3, 000 28, 000 51, 000		1 53 55 5 5 5 3 28 4 4 108 39
New London Norwalk harbor Total for Norwalk harbor Saybrook harbor	1829 1880 1881 1882 1884 1886 1888 1890 1829	53, 080	5, 000 5, 000 5, 000 5, 000 3, 000 28, 000		53 55 55 5 5 3 28 4

CONGRESSIONAL APPROPRIATIONS—Continued.

TABLE 39.—APPROPRIATIONS FOR ATLANTIC COAST AND GULF OF MEXICO—Continued.

LOCALITIES.	Date of earliest appropria- tion.	Appropriations up to and includ- ing 1879.	Appropriations from 1880 to 1889, inclusive.	Appropriations September 19, 1890.	Total appropria- tions to date.
CONNECTICUT—Continued.	1	1.00			1.00
Stamford harbor	1829	\$100			\$100
	1886		\$10,000		10,000
	1888 1890		5, 000	\$5,000	5, 000 5, 000
		1000 000 000 000 000 000 000 000 000 00	** ***		
Total for Stamford harbor	1829	100	15,000	5, 000	20, 100
Stonington harbor	1827	184, 454			184, 454
	1880		25, 000		25,000
	1881		30,000		30,000
	1882		25, 000		25,000
	1884	***************************************	10,000		10,000
	1886		20, 000	****************	20,000
	1888 1890		8, 000	12, 500	8, 000 12, 500
Total for Stoutenton borbon	1827	184, 454	118,000		
Total for Stonington harbor	1021	104, 404	118,000	12, 500	314, 954
Thames river	1821	169, 300			169,300
	1880 1881		22, 500 30, 000		22, 500 30, 000
	1882	******************	35, 000		35, 000
	1884		25, 000		25, 000
	1886	V-145 - 145 - 145 - 175 - 1	22, 500		22, 500
	1888		50, 000		50, 000
	1890			20,000	20,000
Total for Thames river.	1821	169, 300	185, 000	20,000	374, 300
Total for 1 names river.	1041	103, 300	185, 000	20,000	374, 300
Westport harbor (Saugatuck)	1826 1886	18, 444	1,000		· 18,444 1,000
Total for Westport harbor	1826	18, 444	1,000		19, 444
Wilson Point harbor	1890		,	30,000	30,000
NEW YORK	1829	4, 304, 568	3, 881, 000	1, 100, 000	9 285, 568
Brown creek	1890			12,000	12,000
Canarsie bay	1880	*****************	10,000		10,000
	1881		5, 000		5,000
	1882 1884	***************************************	3, 000 5, 000		3, 000 5, 000
The state of the s	1886		10,000		10,000
	1888		10, 000		10,000
	1890			5,000	5,000
Total for Canarsie bay	1880		43, 000	5,000	48, 000
East Chester creek	1873	50, 500			50, 500
Mast Chestot Litera	1880	50,500	3, 500		3,500
	1886		10,000		10,000
	1888		5, 000		5, 000
Total for East Chester creek	1873	50, 500	18, 500		69,000
Part since and Hell Cate	1070	0.005.000			P 605 600
East river and Heil Gate	1852 1880	2, 295, 000	000 000		2, 295, 000
	1881		200, 000 200, 000		200, 000
	1882		250, 000		250, 000
	1884		360, 000		360,000
	1886	***************************************	112, 500		112,500
	1888 1890		250, 000	200, 000	250, 000 200, 000
Total for East river and Hell Gate	1852	2, 295, 000	1, 372, 500	200,000	3, 867, 500
	1878	12 000			13,000
Echo harbor		13,000	3,000		3,000
Echo harbor			3,000		3,000
Echo harbor	1880 1881		0,000		
	1880 1881 1882		3,000		3,000
Echo harbor	1880 1881	13, 000	3, 000		22, 600
	1880 1881 1882 1878	13,000	9, 000		22, 600
Total for Echo harbor	1880 1881 1882 1878	20,000	3, 000 9, 000		22, 600 20, 000 15, 000
Total for Echo harbor	1880 1881 1882 1878	·	3, 000 9, 000		22, 600
Total for Echo harbor	1880 1881 1882 1878 1879 1880 1841 1882 1884	20,000	3, 000 9, 000 15, 000 10, 000 5, 000		22, 600 20, 000 15, 000 10, 600
Total for Echo harbor	1880 1881 1882 1878 1879 1880 1841 1882 1884 1886	20,000	3, 000 9, 000 15, 000 10, 000 5, 000 10, 000		22, 000 20, 000 15, 000 10, 000 5, 000 10, 000
Total for Echo harbor	1880 1881 1882 1878 1879 1880 1841 1882 1884	20,000	3, 000 9, 000 15, 000 10, 000 5, 000 10, 000	23,000	22, 600 20, 600 15, 600 10, 600 5, 600

CONGRESSIONAL APPROPRIATIONS—Continued.

TABLE 39.—APPROPRIATIONS FOR ATLANTIC COAST AND GULF OF MEXICO—Continued.

LOCALITIES.	Date of earliest appropriation.	Appropriations up to and includ- ing 1879.	Appropriations from 1880 to 1889, inclusive.	Appropriations September 19, 1890.	Total appropri
EW YORK—Continued. Glen Cove harbor	1888		\$20,000		\$20,0
Gren Cove narror	1890		\$20,000	\$15,000	15,
Total for Glen Cove harbor	1888	ļ	20,000	15, 000	35, 0
	1881		40.000		40.4
Gowanus bay	1882		40, 000 20, 000		40, 0 20, 0
	1883 188 6		5, 000 7, 500		8, C 7, 8
	1888		60, 000		60, 6
	1890			160, 000	160, 0
Total for Gowanus bay	1881		132, 500	160, 000	292, 5
	1000			ļ i	••
Greenport harbor	1882 1884		10, 000 10, 000		10, 0 10, 0
	1886		5, 000		5,
	1888		5, 000		5.
	18 9 u			5, 000	5, (
Total for Greenport harbor	1882		30,000	5, 000	35, (
Harlem river	1875	\$410,000			410, 0
	1888	410,000	70, 000		70, 0
	1890		 	250, 000	250, 0
Total for Harlem river	1875	410, 000	70,000	250, 000	730, (
Hudson river	1834	1, 190, 188			1, 190,
	1880		20,000	!	20,
	1881	· • • • • • • • • • • • • • • • • • • •	15, 000	·	15, 10,
	1882 1884		10, 000 30, 0 00		30,
	1886		26, 250	i	26,
	1888 1890		75, 000	150, 000	75, 1 5 0,
Total for Hudson river	1834	1, 190, 188	176, 250	150,000	1, 516,
Huntington harbor	1872	i 22,500		; ,	22,
:	1890			10,000	10, (
Total for Huntington harbor	1872	22, 500	•••••	10,000	32,
Larchmont harbor	1890				5, 0
			•••••	5,000	υ, ·
Mamaroneck harbor	1882		15, 000	5,000	
			15, 000	5,000	15,
	1882 1881 1882		15, 000 20, 000 15, 000	5,000	15, (20, (15, (
New Rochelle harbor	1881		20, 000	5,000	15, c
New Rochelle harbor	1881 1882 1881		20, 000 15, 000 35, 000	5,000	15, 20, 15, 85,
New Rochelle harbor	1881 1882 1881		20, 000 15, 000 35, 000	5,000	15, 20, 15, 85,
New Rochelle harbor	1881 1882 1881 1980 1982 1884		20, 000 15, 000 35, 000 10, 000 15, 000 20, 000	5,000	15, 20, 15, 85,
New Rochelle harbor	1881 1882 1681 1980 1982 1884 1886		20, 000 15, 000 35, 000 10, 000 15, 000 20, 100 37, 500	5,000	15, 20, 15, 35, 10, 15, 20, 37,
New Rochelle harbor	1881 1882 1881 1980 1982 1884		20, 000 15, 000 35, 000 10, 000 15, 000 20, 000	35,000	15, 20, 15, 35, 10, 15, 20, 37, 25,
New Rochelle harbor	1881 1882 1881 1980 1982 1884 1886 1888		20, 000 15, 000 35, 000 10, 000 15, 000 20, 100 37, 500 25, 000	35,000	15, 20, 15, 35, 10, 15, 20, 37, 25, 35,
New Rochelle harbor	1881 1882 1881 1980 1982 1884 1886 1888		20, 000 15, 000 35, 000 10, 000 15, 000 20, 100 37, 500		15, 20, 15, 35, 10, 15, 20, 37, 25,
New Rochelle harbor	1881 1882 1881 1980 1982 1884 1896 1888 1890 1880		20, 000 15, 000 35, 000 10, 000 15, 000 20, 100 37, 500 25, 000	35,000	15, 20, 15, 35, 10, 15, 20, 37, 25, 85,
New Rochelle harbor	1881 1882 1681 1980 1982 1884 1886 1888 1890 1880		20, 000 15, 000 35, 000 10, 000 15, 000 20, 100 37, 500 25, 000 107, 500	35,000	15, 20, 15, 35, 10, 15, 20, 37, 25, 35, 142,
New Rochelle harbor	1881 1882 1881 1980 1982 1884 1896 1888 1890 1880		20, 000 15, 000 35, 000 10, 000 15, 000 20, 000 27, 500 25, 000 107, 500	35,000	15, 20, 15, 35, 10, 15, 20, 37, 25, 36, 142,
New Rochelle harbor	1881 1882 1881 1980 1982 1884 1886 1888 1890 1880 1880 1881 1882 1884 1884		20, 000 15, 000 35, 000 10, 000 15, 000 20, 000 27, 500 28, 000 107, 500 60, 000 60, 000 60, 000 10, 000 56, 250	35,000	15, 20, 16, 35, 10, 15, 20, 37, 25, 35,
New Rochelle harbor. Total for New Rochelle harbor. Newtown creek. Total for Newtown creek New York harbor: Buttermilk channel.	1881 1882 1881 1980 1982 1884 1896 1888 1890 1880 1880 1881 1882 1894 1882		20, 000 15, 000 35, 000 10, 000 15, 000 20, 000 27, 500 25, 000 107, 500 60, 000 60, 000 10, 000 56, 250 100, 000	35,000	15, 20, 15, 35, 10, 15, 20, 37, 25, 85, 142, 60, 60, 60, 10, 56,
New Rochelle harbor	1881 1882 1881 1980 1982 1982 1984 1884 1886 1888 1890 1880 1880 1881 1882 1884 1884 1886 1888		20, 000 15, 000 35, 000 10, 000 15, 000 20, 000 27, 500 28, 000 107, 500 60, 000 60, 000 60, 000 10, 000 56, 250	35,000	15, 20, 15, 35, 10, 15, 20, 37, 25, 35, 42, 60, 60, 60, 10, 10, 200,
New Rochelle harbor. Total for New Rochelle harbor. Newtown creek. Total for Newtown creek New York harbor: Buttermilk channel.	1881 1882 1681 1980 1982 1884 1886 1888 1890 1880 1880 1881 1881 1884 1886 1888		20, 000 15, 000 35, 000 10, 000 15, 000 20, 100 37, 500 25, 000 107, 500 60, 000 60, 000 60, 000 60, 000 56, 250 100, 000 200, 000	35,000	15, 20, 16, 35, 10, 15, 20, 37, 25, 35, 142, 60, 60, 10, 56, 100, 200, 750, 390,
New Rochelle harbor. Total for New Rochelle harbor. Newtown creek. Total for Newtown creek New York harbor: Buttermilk channel. Gedney and Main Ship channel.	1881 1882 1881 1980 1982 1884 1886 1888 1890 1880 1880 1881 1882 1884 1884 1886 1888 1888 1888		20,000 15,000 35,000 10,000 15,000 20,000 37,500 25,000 107,500 60,000 60,000 60,000 10,000 56,250 100,000 200,000	35,000	15, 20, 15, 35, 10, 15, 20, 37, 25, 35,
New Rochelle harbor. Total for New Rochelle harbor. Newtown creek. Total for Newtown creek New York harbor: Buttermilk channel.	1881 1882 1681 1980 1982 1884 1886 1888 1890 1880 1880 1881 1881 1884 1886 1888	116, 530 19, 500	20,000 15,000 35,000 10,000 15,000 20,000 37,500 25,000 107,500 60,000 60,000 60,000 10,000 56,250 100,000 200,000	35,000	15, 20, 15, 35, 10, 15, 20, 37, 25, 85, 142, 60, 60, 60, 10, 56, 100, 200, 750, 380, 100,
New Rochelle harbor. Total for New Rochelle harbor. Newtown creek. Total for Newtown creek New York harbor: Buttermilk channel. Gedney and Main Ship channel. Sandy Hook channel.	1881 1882 1881 1980 1982 1884 1896 1888 1890 1880 1880 1881 1882 1884 1888 1888 1888 1888 1888	116,530	20,000 15,000 35,000 10,000 15,000 20,000 37,500 25,000 107,500 60,000 60,000 60,000 10,000 56,250 100,000 200,000	35,000	15, 20, 16, 35, 10, 15, 20, 37, 25, 35, 142, 60, 60, 60, 100, 200, 390, 116, 19,
New Rochelle harbor. Total for New Rochelle harbor. Newtown creek. Total for Newtown creek New York harbor: Buttermilk channel. Gedney and Main Ship channel. Sandy Hook channel. Staten Island icebreaker. Total for New York harbor.	1881 1882 1881 1980 1982 1884 1886 1888 1890 1880 1881 1882 1884 1884 1886 1888 1888 1888 1888 1888	116, 530 19, 500	20, 000 15, 000 35, 000 10, 000 15, 000 20, 000 25, 000 107, 500 60, 000 60, 000 60, 000 10, 000 200, 000 200, 000 750, 000 380, 000	35, 000 35, 000	15, 20, 15, 20, 15, 20, 37, 25, 35, 35, 42, 60, 60, 10, 200, 750, 380, 160, 116, 119, 1, 972,
New Rochelle harbor. Total for New Rochelle harbor. Newtown creek. Total for Newtown creek New York harbor: Buttermilk channel. Gedney and Main Ship channel. Sandy Hook channel. Staten Island icebreaker. Total for New York harbor.	1881 1882 1881 1980 1982 1884 1886 1888 1890 1880 1880 1881 1882 1884 1886 1888 1888 1888 1888 1888 1888	116, 530 10, 500 136, 030	20, 000 15, 000 35, 000 10, 000 15, 000 20, 000 25, 000 107, 500 60, 000 60, 000 60, 000 10, 000 200, 000 200, 000 750, 000 380, 000	35, 000 35, 000 160, 000	15, 20, 15, 20, 15, 20, 37, 25, 35, 35, 42, 60, 60, 100, 200, 750, 380, 160, 116, 19, 1, 972, 15,
New Rochelle harbor. Total for New Rochelle harbor. Newtown creek. Total for Newtown creek New York harbor: Buttermilk channel. Gedney and Main Ship channel. Sandy Hook channel. Staten Island icebreaker. Total for New York harbor.	1881 1882 1881 1980 1982 1884 1886 1886 1886 1880 1880 1880 1881 1882 1884 1884 1884 1885 1888 1890 1888 1888 1890	116, 530 19, 500	20, 000 15, 000 35, 000 10, 000 15, 000 20, 100 37, 500 25, 000 107, 500 60, 000 60, 000 60, 000 10, 000 56, 250 100, 000 750, 000 380, 000	35, 000 35, 000 160, 000	15, 20, 16, 15, 20, 16, 10, 15, 20, 37, 25, 35, 142, 142, 160, 200, 750, 380, 116, 19, 1, 972, 15, 12, 13, 15, 12, 13, 15, 12, 15, 160, 116, 19, 19, 19, 19, 19, 19, 19, 19, 19, 19
Total for New Rochelle harbor. Newtown creek Total for Newtown creek New York harbor: Buttermilk channel. Gedney and Main Ship channel. Sandy Hook channel. Staten Island icebreaker.	1881 1882 1681 1982 1982 1982 1984 1884 1886 1888 1890 1880 1881 1882 1884 1886 1888 1898 1888 1898 1888 1898 1888 1898 1888 1898 1888 1898 1888 1898 188 1888 1888 1888 1888 1888 1888 1888 18	116, 530 10, 500 136, 030	20, 000 15, 000 35, 000 10, 000 15, 000 20, 000 37, 500 25, 000 107, 500 60, 000 60, 000 60, 000 60, 000 56, 250 100, 000 200, 000 750, 000 380, 000	35, 000 35, 000 160, 000	15, 20, 15,

CONGRESSIONAL APPROPRIATIONS—Continued.

TABLE 39.—APPROPRIATIONS FOR ATLANTIC COAST AND GULF OF MEXICO—Continued.

LOCALITIES.	Date of earliest appropriation.	Appropriations up to and includ- ing 1879.	Appropriations from 1880 to 1889, inclusive.	Appropriations September 19, 1890.	Total approp
W YORK—Continued.	1050			i	#6 5
Port Jefferson harbor	1852 1880	\$65, 200	\$ 3, 000		3
·	1881		4,000		4
	1882		8, 000		8
•	1890			\$25,000	25
Total for Port Jefferson harbor	1852	65, 200	15, 000	25, 000	105
Rondout harbor	1872	90,000			90
	1882		2,000		2
	1884		1,000		1
	1886 1888		2, 500 5, 000		2 5
•	1890			5, 000	5
Total for Rondout harbor	1872	90,000	10, 500	5,000	105
Sag harbor	1829	150			
Saugerties harbor	1884		5, 000		5
AMPCTATE HELDAT	1886		15, 000		15
	1888		12, 000		12
	1890			10,000	10
Total for Saugerties harbor	1884		32, 000	10,000	4:
Sheepshead bay	1880		3, 000		:
· · · · · · · · · · · · · · · · · · ·	1881		5,000		
•	1882		3, 000		
	1884 1886	•••••••••••••••••••••••••••••••••••••••	5, 000 5, 000		
	1888		5, 000		
Total for Sheepshead bay	1880		26, 000		9
Sumpawamus bay	1881		5, 000		
	1882		2,000		
Total for Sumpawamus bay	1881		7, 000	1	,
Wappinger creek.	1890	i I		13,000	13
W JERSEY	1829	551, 063	1, 166, 975	175, 000	1, 893
Alloway creek	1890			6,000	
Atlantic City harbor	1886		5,000		_
Admitted City matter	1				1 5
_			0,000		
Cheesequake creek	1880	!	20,000		20
Cheesequake creek	1880 1881 1882		20, 000 5, 000		. 2
Total for Cheesequake creek.	1881 1882		20,000		. 2
Total for Cheesequake creek.	1881 1882 1880	10.500	20, 000 5, 000 15, 000		18
Total for Cheesequake creek.	1881 1882 1880	19,500	20, 000 5, 000 15, 000 40, 000		20 12 40
Total for Cheesequake creek.	1881 1882 1880 1873 1880 1881	19, 500	20,000 5,000 15,000 40,000 4,500 7,000		22 11 40 19 4
Total for Cheesequake creek.	1881 1882 1880 1873 1880 1881 1882		20,000 5,000 15,000 40,000 4,500 7,000 5,000		26 15 40 19 4 7, 5,
Total for Cheesequake creek. Cohansey creek. Total for Cohansey creek.	1881 1882 1880 1873 1880 1881 1882 1873	19, 500	20,000 5,000 15,000 40,000 4,500 7,000		19 40 19 47 55
Total for Cheesequake creek. Cohansey creek. Total for Cohansey creek.	1881 1882 1880 1873 1880 1881 1882 1873		20,000 5,000 15,000 40,000 4,500 7,000 5,000		20 5 15 40 19 4,7 5,
Total for Cheesequake creek. Cohansey creek. Total for Cohansey creek.	1881 1882 1880 1873 1880 1881 1882 1873	19, 500	20,000 5,000 15,000 40,000 4,500 7,000 5,000		26 5 15 40 19 4 7 5,
Total for Cheesequake creek. Cohansey creek. Total for Cohansey creek.	1881 1882 1880 1880 1881 1881 1882 1873 1852 1879 1880	19,500	20,000 5,000 15,000 40,000 4,500 7,000 5,000 16,500		200 5 15 40 19, 4, 7, 5, 36.
Total for Cheesequake creek. Cohansey creek. Total for Cohansey creek.	1881 1882 1880 1880 1881 1882 1873 1852 1879 1852 1879 1880 1881	19,500	20,000 5,000 15,000 40,000 40,000 5,000 16,500		26 5 15 40 19 4 7, 5, 36. 1. 7.
Total for Cheesequake creek. Cohansey creek. Total for Cohansey creek. Cranberry inlet	1881 1882 1880 1880 1881 1881 1882 1873 1852 1879 1880	19,500	20,000 5,000 15,000 40,000 4,500 7,000 5,000 16,500	5,000	22 11 12 19 4 7 5 36 1. 7, 7, 4 4.
Total for Cheesequake creek. Cohansey creek. Total for Cohansey creek. Cranberry inlet	1881 1882 1880 1880 1881 1881 1882 1873 1852 1879 1880 1881 1881	19,500	20,000 5,000 15,000 40,000 40,000 5,000 16,500	5,000	200 5 15 40 19, 4, 7, 5, 36. 1. - 7, 7, 4, 8, 5,
Total for Cheesequake creek. Cohansey creek. Total for Cohansey creek. Cranberry inlet. Elizabeth river. Total for Elizabeth river.	1881 1882 1880 1880 1881 1881 1882 1873 1852 1879 1880 1881 1881 1882 1890	19,500 1,000 7,500	20,000 5,000 15,000 40,000 4,500 7,000 5,000 16,500 7,500 4,000 8,000		20 5 15 40 19, 4, 7, 5, 36. 1. - 7, 7, 4, 8, 5,
Total for Cheesequake creek. Cohansey creek. Total for Cohansey creek. Cranberry inlet. Elizabeth river Total for Elizabeth river.	1881 1882 1880 1880 1881 1881 1882 1882	19,500 1,000 7,500 7,500	20,000 5,000 15,000 40,000 40,000 5,000 16,500 7,500 4,000 8,000		200 5 15 40 19, 4, 7, 5, 36. 1. - 7, 7, 4, 8, 5,
Total for Cheesequake creek. Cohansey creek. Total for Cohansey creek. Cranberry inlet. Elizabeth river. Total for Elizabeth river. Flat Beach. Keyport harbor.	1881 1882 1880 1880 1881 1882 1873 1882 1873 1882 1879 1889 1881 1882 1890 1879	19,500 1,000 7,500 7,500	20,000 5,000 15,000 40,000 4,500 7,000 5,000 16,500 7,500 4,000 8,000		26 5 15 40 19 4, 7, 5, 36. 1. 7, 7, 4, 8, 5, 32.
Total for Cheesequake creek. Cohansey creek. Total for Cohansey creek. Cranberry inlet. Elizabeth river. Total for Elizabeth river. Flat Beach. Keyport harbor.	1881 1882 1880 1880 1881 1882 1873 1882 1873 1882 1879 1889 1881 1882 1890 1879	19,500 1,000 7,500 7,500	20,000 5,000 15,000 40,000 40,000 5,000 16,500 7,500 4,000 8,000		26 5 15 40 19 4, 7, 5, 36. 1. 7, 7, 4, 8, 5, 32.
Total for Cheesequake creek. Cohansey creek. Total for Cohansey creek. Cranberry inlet Elizabeth river Total for Elizabeth river. Flat Beach Keyport harbor	1881 1882 1880 1880 1881 1882 1873 1882 1879 1882 1882 1890 1879	19,500 1,000 7,500 7,500	20,000 5,000 15,000 40,000 40,000 5,000 16,500 7,500 4,000 8,000		200 5 15 40 19, 4, 7, 5, 36. 1. - 7, 4, 8, 5, 32,
Cohansey creek	1881 1882 1880 1880 1881 1882 1882 1873 1852 1879 1880 1881 1882 1890 1879 1829 1829	19, 500 1, 000 7, 500 7, 500 100	20,000 5,000 15,000 40,000 40,000 5,000 16,500 7,500 4,000 8,000		5 5 20 5 15 15 15 16 16 16 16 16 16 16 16 16 16 16 16 16
Total for Cheesequake creek. Cohansey creek. Total for Cohansey creek. Cranberry inlet. Elizabeth river. Total for Elizabeth river. Flat Beach Keyport harbor. Little Egg Harbor.	1881 1882 1880 1880 1881 1881 1882 1873 1852 1879 1880 1881 1882 1890 1879 1829 1829 1836	19, 500 1, 000 7, 500 7, 500 100	20, 000 5, 000 15, 000 40, 000 4, 500 7, 000 5, 000 16, 500 7, 500 4, 000 8, 000 19, 500		226 5 15 40 19 4 7,7 5, 36. 1. 7,7,4. 8,5, 32.

CONGRESSIONAL APPROPRIATIONS—Continued.

TABLE 39.—APPROPRIATIONS FOR ATLANTIC COAST AND GULF OF MEXICO—Continued.

LOCALITIES,	Date of earliest appropria- tion.	Appropriations up to and includ- ing 1879.	Appropriations from 1880 to 1889, inclusive.	Appropriations September 19, 1890.	Total appropria tions to date.
W JERSEY—Continued.	1882		\$21,000		\$21,00
Mattawan creek	1890		\$21,000	\$2,500	2, 50
Total for Mattawan creek	1882		21,000	2, 500	23,50
	1000		- 607	Harry Total	
Maurice river	1882 1884		3, 000 17, 000		3, 00 17, 00
	1886		5, 000		5, 00
	1888 1890		10,000	8,000	10, 00 8, 00
Total for Maurice river	1882		35, 000	8,000	43,00
Newark bay	1852	\$12,000			12,00
New Brunswick harbor	1836	13, 963			13,96
Passaie river above Newark	1872	112,000			112, 00
	1880 1882		2, 000 7, 000	*****************	2, 00 7, 00
	1884		7, 000 3, 000		3,00
•	1886		2, 250		2, 25
;	1888 1890		7, 500	41,500	7, 50 41, 50
Passaic river below Newark	1880		30, 000		. 30,00
	1881 1882		50, 000 43, 000		50, 00 43, 00
	1884		25, 000		25, 00
·	1886 1888		24, 000 27, 500		24, 00 27, 50
Total for Passaic river	1872	112,000	221, 250	41,500	374, 78
Raccoon river	1882		3, 000		8,00
Rahway river	1879	10,000	******		10, 00
•	1880 1881		10,000		10, 00 10, 00
	1882		10, 000 7, 000		7, 00
Total for Rahway river	1879	10;000	27, 000		87, 00
Rancocas river	1881 1882		10, 000 10, 000		10, 00 10, 00
Total for Rancocas river	1881		20,000	<u>'</u>	20,00
	****	1		1	.
Raritan bay	1881 1882		50, 000 50, 000		50, 00 50, 00
	1884		20, 000		20,00
, 	1886 1888		37, 500 25, 000		37, 50 25, 00
	1890			40, 000	40,00
Total for Raritan bay	1881		182, 500	40,000	222, 50
Raritan river.	1878 1880	260, 000	100.000		260, 00
	1881		100, 000 25, 000		100, 00 25, 00 25, 00
:	1882 1884		25, 000		25, 00 85, 00
	1886		35, 00 0 26, 250		26, 2
	1888 18 9 0		50,000	50, 000	50, 00 50, 00
Total for Raritan river	1878	260, 000	261, 250	50, 000	571, 25
Salem river	1871	7,000			7, 00
•	1880		8, 000 3, 000		3, 00 3, 00
į	1881 1882		1, 500		1,50
Total for Salem river	1871	7,000	7, 500		14, 50
Shoal harbor	1890			5, 000	5,0
Shrewsbury river	1852	48, 500			48 R
	1880	40,000	39, 9 00		48, 5 80, 0
·1	1 8 81 1 8 82		86, 000 30, 000		86, 0 30, 0
	1002	1		1	
	1886		10, 000		
	1886 1888 1 89 0		10, 000 10, 000	10,000	10, 0 10, 0 10, 0

CONGRESSIONAL APPROPRIATIONS—Continued.

TABLE 39.—APPROPRIATIONS FOR ATLANTIC COAST AND GULF OF MEXICO-Continued.

ATLANTIC COAST—Continued.

LOCALITIES.	Date of earliest appropriation.	Appropriations up to and includ- ing 1879.	Appropriations from 1880 to 1889, inclusive.	Appropriations September 19, 1890.	Total appropria- tions to date.
NEW JERSEY—Continued.	i	1 22.5 55			55.20
South river	1871	\$20,000	***************************************	,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,	\$20,000
	1880 1881	***************************************	\$40,000 6,000		40,000
	1882		10,000		10,000
	1886		5.000		5,000
	1888		5, 000	*************	b, 000
	1890		**************	\$5,000	5, 000
Total for South river	1871	20, 000	66, 000	5, 000	91. 000
Squan river	1890			2,000	2,000
Woodbridge creek	1879	4,000			°s. 000
The second secon	1880		5, 000		5,000
	1881 1882		5, 000 5, 000	,	5, 000 5, 000
	1002		3,000		3,000
Total for Woodbridge creek	1879	4, 000	15, 000		19, 000
PENNSYLVANIA	1826	351, 100	344, 750	50, 000	745, 850
Chester harbor and creek	1826	27, 100			27, 100
Charles and the confidence of	1881 1882	2., 20	3, 000 3, 000	***************************************	3, 000 3, 000
Total for Chester harbor and creek	:	27, 100	6,000		33, 100
		21,100			İ
Frankford creek	1882		10,000	1	10,000
Marcus Hook harbor	1829	104, 000	 	·	104.000
	1880 1881		35, 000 30, 000		35, 989 30, 093
	1882		15, 000		15,000
	1886		15, 000		15,000
	1888		15, 000		15, 000
	1890			5,000	5, 000
Total for Marcus Hook harbor	1829	104, 000	110,000	5, 000	219,000
Schuylkill river	1870	220, 000	•••••		220, 000
	1880		40, 000		10,000
	1881 1882	•••••	40, 000 25, 000		40, 000 25, 000
	1884		25, 000 25, 000	1	25, 000
	1886		18, 750		18, 750
	1888 1890	•••••	25, 000	45, 000	25, 030 45, 000
	i				
Total for Schuylkill river	1870	220,000	173, 750	45, 000	438, 750
Susquehanns river (North branch)	1880		15, 000		15, 000
•	1881 1882		15, 000 15, 000	,	15, 000 15, 000
Total for Susquehanna river	ĺ		a45, 000	· 	45, 000
Total for Sundingum Liver	!				•
DELAWARE	1822	3, 168, 665	814, 500	128, 100	4, 111, 265
Appoquinnimink creek	1890		' 	5, 000	5,000
Broad creek	1880 1881		5, 000 10, 000	1	5, 000 10, 000
	1882		5, 000		5, 000
	1886 1888		10, 000 5, 000	` 	10, 000 5, 000
Total for Broad creek	1880		35, 000		35, 600
Broadkiln river	1873	10,000	 	·	10,000
are wearested 14100	1880	•••••	5, 000		5, 000
	1881 1882	•••••	5, 000 5, 000		5, 000 - 5, 006
	1882		10,000		10,000
Total for Broadkiln river	1873	10,000	25, 000		35,000
			-0,000		
Chesapeake and Delaware ship canal	1873 1882	b15, 000	b10,000		15, 000 10, 000
Total for Chesapeake and Delaware ship canal	1873	15,000	10,000		25, 000

a See Maryland. b For survey. The cost of canal has been variously estimated at from \$7,000,605 to \$41,500,000.

CONGRESSIONAL APPROPRIATIONS—Continued.

TABLE 39.—APPROPRIATIONS FOR ATLANTIC COAST AND GULF OF MEXICO-Continued.

ATLANTIC COAST—Continued.

LOCALITIES.	Date of earliest appropria- tion.	Appropriations up to and includ- ing 1879.	Appropriations from 1880 to 1889, inclusive.	Appropriations September 19, 1890.	Total appropria- tions to date.
DELAWARE—Continued.					
Delaware bay and harbor:	1000	40 000 161	Line of the last		40 000 00
Breakwater	1822 1880	\$2, 392, 104	\$25,000	***************************************	\$2, 392, 10- 25, 000
	1882		125, 000		125.000
	1884 1886		75, 000 56, 250	***************************************	75. 000 56, 250
	1888		100,000		100,000
Ice harbor	1890 1882	***************************************	25, 000	\$80,000	80, 000 25, 000
Lewes pier	1870	335, 500		***************************************	335, 500
	1880 1881	hannan hannan	10, 000 10, 000	*************	10,000
	1882		13,000	**************	13, 000
Total for Delaware bay and harbor	1822	2, 727, 604	439, 250	80,000	3, 246, 854
Duck creek.	1880		5,000		5, 000
article since and article since article	1881		3,000		3,000
	. 1882 . 1888		2, 000 10, 000		2, 000 10, 000
Total for Duck creek	1880		20,000		20,000
Indian river	1882	,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,	10,000	***************************************	10,000
Jones river	1881		5, 000		5,000
	1884 1886		10,000	***************************************	10, 000 10, 000
	1888		15,000	****************	15, 000
Total for Jones river	1881		40, 000		40,000
	1001		111,475		20,000
Mispillion creek	1879	3,000			3,000
	1880 1881		4,000 3,500	,	4, 000 3, 500
	1882		3,000		3,000
	1888		3, 500		3, 500
Total for Mispillion creek	1879	3,000	14,000		17,000
Newcastle harbor	1826	211, 469			211, 469
	1880		3, 000 20, 000		3,000 20,000
	1881 1884		2,000		20,000
	1886		5, 000 7, 500		5,000 7,500
	1888 1890		7, 300	8, 100	7, 500 8, 100
Total for Newcastle harbor	1826	211, 469	37, 500	8, 100	257, 069
Reedy Island harbor	1827	95, 736			95, 736
•	į.	35, 100			i
Smyrna rivor	1890	i		5, 000	5,000
Wilmington harbor	1836	105, 856		· · · · · · · · · · · · · · · · · · ·	105, 856
·	1880 1881		10, 000 50, 000		10,000 50 ,000
	1882		50, 000		50,000
	1884 1886		25, 000 18, 750		25, 000 18, 750
	1888		30,000		80, 000
	1890			30,000	30,000
Total for Wilmington harbor	1836	105, 856	183, 750	30,000	31 9, 6 0 6
MARYLAND	1836	1, 355, 318	1, 750, 775	407,500	8, 513, 598
Annapolis harbor	1880		5,000		5,000
Total for Annapolis harbor	1881		5,000		5,000
Total for Annapons narbor	1880		10,000		10,000
Baltimore harbor (a)	1836 1880	815, 000	100, 000		815, 000 100, 000
	1881		150,000		150,000
•	1882 1884		450,000 250,000		450, 000 250, 000
	1886		150, 000		150,000
	1888 1890	'	300, 000	340, 000	300, 000 340, 000
Total for Baltimore harbor	1836	815, 000	1, 400, 000	340,000	2, 555, 000
Cambridge harbor	1871	35, 000			85,000
	1888		5, 000		5,000
	1890	¦		5, 000	5,000
	1] - · - 			·

a See Patapaco river.

CONGRESSIONAL APPROPRIATIONS—Continued.

TABLE 39.—APPROPRIATIONS FOR ATLANTIC COAST AND GULF OF MEXICO-Continued.

LOCALITIES.	Date of earliest appropria- tion.	Appropriations up to and includ- ing 1879.	Appropriations from 1880 to 1889, inclusive.	Appropriations September 19, 1890.	Total approrria- tions to date.
ARYLAND—Continued. Chesapeake bay (Battery island)	1836	\$500			850
Champant of (Inter) india	1886		\$17, 275		17, 27
Total for Chesapeake bay	1836	500 .	17, 275		17,77
Chester river	1873 1881	28, 000	6, 500		28.00 6,50
	1882 1890		G, 500	\$5,000	6, 50 5, 60
Total for Chester river.		28,000	13, 000	5,000	46,00
	4.00		2.74		Y
Choptank river	1880 1881		5, 000 5, 000		5,00 5,00
	1882 1884		5 000 5, 600		5, 00 5, 00
	1886		10.000		10,00
	1888 1890	***************************************	7, 500	7,500	7, 50 7, 50
The state of the s		-			-
Total for Choptank river	1880		37, 500	7.500	45,00
Corsica creek			5,009	***************************************	5. 00
	1884 1886		5, 000 10, 000		5, 00 10, 00
	1888		10,000		10,00
Total for Corsica creek	1882		30,000		30,00
Crisfield harbor	1875	37, 318			37, 31
Cristian Interest Control of the Con	1813	21,416	**************		111, 44
Deal island passage	1881 1882		5, 000 5, 000		5, 00 5, 00
Total for Deal island passage	1881		10,000		10,00
Elk river		10,000		******************	10,00
	1880		10, 000 5, 000		10,00
	1881 1882	***************************************	6, 500	10.000	6, 50
Total for Elk river	1890	10.000	91 500	10,000	10.00
Total for Ear river	1874	10,000	21,500	10,000	41, 50
Fairlee creek	1888 1890	***************************************	5, 000	5, 000	5, 00 5, 00
Total for Fairles creek	1888		5,000	5,000	10,000
Township had a (Parka had)	1000	0.000			
Leonardtown harbor (Breton bay)	1878 1880	9, 000	3,000		3,000
	1881		3,000		3,000
	1882 1884	***************************************	5, 000 3, 000	****************	5,00
· ·	1886		6, 500		6, 50
	1888 1890		3,000	5,000	3,00
Total for Leonardtown harbor	1878	9,000	23, 500	5,000	27,50
Manokin river	1890			7, 500	7,50
Northeast river.	1872	10,000			10, 00
	1880 1890	10,000	5, 500	2, 500	5, 50 2, 50
Total for Northeast river	1872	10, 000	5, 500	2, 500	18,00
Patapaco river	1852	293, 100			293, 10
Patuxent river			5, 000		5, 00
Total for Patuxent river.	1890 1888		5,000	6,000	11,00
Pocompke river.	1878	10, 000		0, 000	10,000
	1886	10,003	8 , 00 0		87 00 1
•	. 1660	1			<u>.</u>
Total for Pocomoke river	1878	10,000	8, 000		18, 60

CONGRESSIONAL APPROPRIATIONS—Continued.

TABLE 39.—APPROPRIATIONS FOR ATLANTIC COAST AND GULF OF MEXICO-Continued.

ATLANTIC COAST—Continued.

ARYLAND—Continued. St. Jerome creek Total for St. Jerome creek Secretary creek. Total for Secretary creek. Susquehanna river. Total for Susquehanna river.	1882 1884 1881 1880 1881 1880 1880 1880 1880	\$48, 400	\$6. 500 5, 000 15, 000 26, 500 3, 000 6, 000 28, 000 15, 000 20, 000 6, 000 10, 000	\$4,000	26, 50 3, 00 3, 00 6, 00 48, 40 28, 00 15, 00 20, 00 6, 00
Total for St. Jerome creek Secretary creek. Total for Secretary creek. Susquehanna river. Total for Susquehanna river	1882 1884 1881 1880 1881 1880 1880 1880 1880	\$48,400	5, 000 15, 000 26,500 3, 000 6, 000 28, 000 15, 000 20, 000 6, 000 10, 000	\$4,000	5, 00 15, 00 20, 50 3, 00 6, 00 48, 40 28, 00 15, 00 25, 00 6, 00
Secretary creek	1884 1881 1880 1881 1880 1881 1880 1881 1882 1884 1888 1888 1890	\$48,400	26,500 3,000 3,000 6,000 28,000 15,000 25,000 20,000 6,000 10,000	\$4,000	5, 000 15, 000 26, 500 3, 000 6, 000 48, 400 28, 000 25, 000 20, 000 6, 000 10, 000
Secretary creek	1880 1880 1881 1880 1880 1880 1880 1881 1882 1884 1888 1888	\$48, 400	26,500 3,000 3,000 6,000 28,000 15,000 25,000 20,000 6,000 10,000	\$4,000	26, 500 3, 000 6, 000 48, 400 28, 000 13, 000 25, 000 20, 000 6, 000
Secretary creek	1880 1881 1880 1880 1880 1881 1882 1884 1886 1888 1890		3, 000 3, 000 6, 000 28, 000 15, 000 25, 000 20, 000 10, 000	\$4,000	3, 000 3, 000 6, 000 48, 400 28, 000 13, 000 25, 000 20, 000 6, 000
Total for Secretary creek Susquehanna river. Total for Susquehanna river	1881 1880 1852 1880 1881 1882 1884 1886 1888 1890		28, 000 15, 000 25, 000 20, 000 6, 000 10, 000	\$4,000	3, 000 6, 000 48, 400 28, 000 13, 000 25, 000 20, 000 6, 000
Susquehanna river	1880 1852 1880 1881 1882 1884 1888 1888 1890		6, 000 28, 000 15, 000 25, 000 20, 000 6, 000 10, 000	\$4,000	6, 000 48, 400 28, 000 13, 000 25, 000 6, 000
Susquehanna river	1852 1880 1881 1882 1884 1886 1888 1890		28, 000 15, 000 25, 000 20, 000 6, 000 10, 000	\$4,000	48, 400 28, 000 15, 000 25, 000 20, 000 6, 000
Total for Susquehanns river	1880 1881 1882 1884 1886 1888 1890		15, 000 25, 000 20, 000 6, 000 10, 000	\$4,000	28, 000 15, 000 25, 000 20, 000 6, 000
Total for Susquehanns river	1880 1881 1882 1884 1886 1888 1890		15, 000 25, 000 20, 000 6, 000 10, 000	\$4,000	28, 00 15, 00 25, 00 20, 00 6, 00
-	1882 1884 1886 1888 1890		25, 000 20, 000 6, 000 10, 000	\$4,000	25, 00 20, 00 6, 00
-	1884 1886 1888 1890		20, 000 6, 000 10, 000	\$4,000	20, 000 6, 000
-	1886 1888 1890 1852		6, 000 10, 000	\$4,000	6, 000
-	1888 1890 1852		10,000	\$4,000	
-	1890 - 1852	48, 400		\$4,000	
-	Ì	48, 400	104.006		4,000
-	Ì			4, 000	156, 40
Treadhavan areak	- 1881	· '		. '	
Tronulaten Crook			6, 000		6,000
Wicomico river	. 1872	32,000			33, 000
	1880		5, 000	1	5, 000
• .	1881		2,000		2,000
	1884	1	10,000	·····	10,000
	1890			10,000	10,000
Total for Wicomico river	1881	33, 000	17, 000	10, 000	60, 000
Worton harbor	1872	12, 000			12,000
ISTRICT OF COLUMBIA	1833	501, 500	1, 825, 000	280,000	2, 606, 500
Potomac river	1833	a351, 500		1	351, 500
TOWNER FIVER	1882	a351, 500	400,000		400,000
	1884		500, 000		500, 000
	1886		875, 000		375, 000
	1888		300,000		300,000
Anacostia bridge			110, 000		110,000
Great Falls			50, 000		50,000
Washington and Georgetown harbors		150, 000	40.000		150,00
	1880 1881		40, 000 50, 000		40, 00 50, 00
	1890		50,000	. 280, 000	280, 00
TRGINIA	- 1829	1, 292, 580	1, 694, 800	508, 000	3, 495, 38
Accotink creek	. 1872	5, 000			5, 00
			İ		
Appomattox and James rivers	1852 1871	45, 000 260, 000	j		45, 00 260, 00
Appoinated	1880	200,000	20,000		20,00
	1881		20, 000		20, 70
	1882		35, 000		35,00
	1884		25, 000		25, 00
	1886		18, 750		18, 75
	1888		15, 000	15 000	15,00
T	1890 1836	530, 500	,	15, 000	15, 00 530, 50
James	1880	000,000	75, 000		75, 00
	1881		60, 000		60,00
	1882		75, 000		75, 00
	1884		75, 000		75,00
	1886		112, 500		112, 50
	1888 1890		225, 000	200, 000	225, 00 200, 00
Total for Appomattox and James rivers	1836	835, 500	756, 250	215, 000	1, 806, 75
A DOMEST LOS TEN POR PORTO DE LA COMPANIO DEL COMPANIO DEL COMPANIO DE LA COMPANIO DE LA COMPANIO DE LA COMPANIO DE LA COMPANIO DE LA COMPANIO DE LA COMPANIO DE LA COMPANIO DE LA COMPANIO DE LA COMPANIO DE LA COMPANIO DE LA COMPANIO DE LA COMPANIO DE LA COMPANIO DE LA COMPANIO DE LA COMPANIO DE LA COMPANIO DEL COMPANIO DEL COMPANIO DEL COMPANIO DEL COMPANIO DE LA COMPANIO DEL COM		5, 500	100, 200	210,000	2,000,10
Aquia creek	. 1872 1890	10, 500		10,000	10, 50 10, 00
Total for Aquia creek	. 1872	10, 500		10, 900	20, 50
				,	
Archer Hope river	. 1881 1882	***************************************	5, 000 5, 000		5, 00 5, 00

a Of this amount, \$150,000 was appropriated in 1833 for the removal of obstructions in the river, the purchase of Little Falls bridge, and the construction of a turnpike road.

CONGRESSIONAL APPROPRIATIONS—Continued.

TABLE 39.—APPROPRIATIONS FOR ATLANTIC COAST AND GULF OF MEXICO—Continued.

LOCALITIES.	Date of earliest appropriation.	Appropriations up to and includ- ing 1879.	Appropriations from 1880 to 1889, inclusive.	Appropriations September 19, 1890.	Total appropris
IRGINIA—Continued.		<u> </u>			
Blackwater river	1878	\$7,500	49 EM	j	\$7,56 3,50
· · · · · · · · · · · · · · · · · · ·	1880 1881		\$3,500 1,500		1,50
!	1882		1,500		1,50
Total for Blackwater river	1878	7, 500	6, 500		14,00
			, 	•	
Cape Charles City harbor	1890			\$25,000	25, 00
Channel from Norfolk to Atlantic ocean	1878	20, 000			20,0
Chickshominy river	1878 1880	6,000	2,000	•••••	6,0 2,0
	1881		2,000		2.00
	1882 1886		5, 000 4, 000	·····	5, 0 4, 0
	1888		2,500		2, 5
!	1890			2, 500	2,5
Total for Chickahominy river	1878	6,000	15, 500	2, 500	24, 0
Elizabeth river	1829	40, 080			40, 0
Hampton river	1878	12,000			12,0
	1890	·	'- 	10,000	10, 0
Total for Hampton river	1878	12, 000		10,000	22, 0
Mattapony river	1880		2,500		2,5
	1881		3, 300		3,3
·	1884 1886	•••••	2, 500 5, 000		2, 5 5, 0
	1888		3,000		3,0
	1890			3,000	3, 0
Total for Mattapony river	1880	!	16, 300	3, 000	19, 3
Nansemond river	1873 1888	37, 000	10, 000		37, 0 10, 0
	1890	1		10,000	10, 0
Total for Nansemond river	1873	37, 000	10,000	10, 000	57, 0
Neabsco creek	1881	}	5,000		5, (
Nomoni creek	1873	23, 500			23, 5
Nomoni creek.	1880		5, 000		5,0
	1881 1882		2, 000 2, 000		2, (2, (
	1888		5, 000		5,0
:	1890			5, 000	5, (
Total for Nomoni creek	1873	23, 500	14, 000	5, 000	42,
Norfolk harbor	1876 1880	160, 000	50.000		100,0
	1881		50, 000 75, 000	••••••••••	50, 0 75, 0
	1882		75, 000		75.0
	1884 1886		75, 000 187, 500		75, 0 187, 5
•	1888		50,000		50, 0
	1890			150, 000	150, 0
Total for Norfolk harbor	1876	160, 000	512, 500	150, 000	822,
Nottoway river	1880 1881		5, 000 2, 000		5, (2, (
Total for Nottoway river	1880		7,000		4 (
Occoquan river	1873	25, 000			25, (
	1890			10,000	10,0
Total for Occoquan river	1873	25,000		10,000	35, (
Onancock harbor	1879 1880	3,000	5,000		3, (5,
	1890			6,000	ā, ē
Total for Onancock harbor	1879	3, 000	5, 000	6,000	14.0
Total for Onanoock harbor	1879 1880 1881	3,000	5, 000 5, 000 5, 000	6,000	14. 0 5, 0 5, 0

TABLE 39.—APPROPRIATIONS FOR ATLANTIC COAST AND GULF OF MEXICO—Continued.

ATLANTIC COAST-Continued.

LOCALITIES.	Date of earliest appropriation.	Appropriations up to and includ- ing 1879.	Appropriations from 1880 to 1889, inclusive.	Appropriations September 19, 1890.	Total appropria- tions to date.
IRGINIA—Continued.		•			
Pamunkey river	1880		\$2,500		\$2, 500
·	1881	***************	2, 500		2, 500
	1882		2, 500		2, 500
	1886		5, 000		5, 000
	1888		3,000		3,000
	1890			\$3,000	3,000
		2007			
Total for Pamunkey river	1880	**************	15, 500	3, 000	18, 500
Potomac river (Mount Vernon channel)	1879	\$4,000			4, 000
	1880		3,000		3,000
	1881		1,500		1 500
	1888		6,000		6,000
	1890	**************		2, 500	2,500
Total for Potomac river	1879	4, 000	10, 500	2, 500	17, 000
Total for Potomac river	1010	4,000	10, 500	2, 500	17,000
Rappahannock river	1852 1880	93, 500	95 000	•••••	93, 500
			25, 000	•••••	25, 000
	1881		15, 000	••••••	15, 000
	1882		17,000		17,000
	1884		20, 000	· • • • • • • • • • • • • • • • • • • •	20.000
	1886		20, 000	•••••	20,000
	1888		15, 000	••••	15,000
	1890			15, 000	15, 00
Total for Rappahannock river	1852	93, 500	112,000	15, 600	220, 500
Town for Amphanannoon first	1002	33, 300	. 112,000	15, 000	220, 500
Staunton river	1879	5, 000	 		5, 000
_	1880		7, 500		7. 500
·	1881		5,000		5, 0.0
	1882		7,000	l	7,000
	1884	 	5,000		5,000
	1886	l	10,000		10, 000
	1888		5,000	. 	5, 000
	1890			8,000	8,000
Total for Staunton river	1879	5, 000	39, 500	8, 000	52, 500
Totusky river	1880	1	2, 500		2, 500
	1881		2, 500		2,500
·	1882		5, 000		5,000
Total for Totusky river	1880		10,000		10.000
-		1	,		
Urbana creek	1879	5,000			5, 000
	1880		2, 500		2, 500
	1881		4, 000		· 4,000
·	1882		4,000		4,000
	1890			3,000	3,000
Total for Urbana creek	1879	5, 000	10, 500	3,000	18, 500
York river	1880		10,000		10,000
	1881		25, 000		25,000
	1882		25, 000	• • • • • • • • • • • • • • • • • • • •	25, 000
	1884		20, 000		20, 000
	1886		18, 750		18, 750
	1888		30,000		30, 000
	1890			30, 000	30,000
Total for York river	1880		128, 750	30, 000	158, 750
RTH CAROLINA	1826	1, 919, 050	1, 910, 250	- 440, 000	4, 269, 309
Beaufort harbor	1836	5,000			5, 000
	1881	5,000	30, 000		30,000
	1882	1	30,000		30,000
	1884		20,000	,	2).000
	1886		15, 000		15, 000
	1888		35, 000	•••••	35, 000
	1890			15, 00:0	15, 000
	1836	5, 000	130, 000	15, 00Q	150, 000
Total for Beaufort harbor	1881		30,000		30, 000
	1 1000		30, 000	• • • • • • • • • • • • • • • • • • •	30, 000
	1882		5, 000		5,000
	1882 1884		11, 250		11, 250
Total for Beaufort harbor				1	12,000
	1884		12, 000	• • • • • • • • • • • • • • • • • • •	
Cape Fear river above Wilmington	1884 1886			15, 000	15,000
Cape Fear river above Wilmington	1884 1886 1886	1, 430, 729		15, 000	15,00
Cape Fear river above Wilmington	1884 1886 1886 1890 1829	1, 430, 729		15, 000	15, 00 1, 430, 72
Cape Fear river above Wilmington	1884 1886 1886 1890 1829 1880		12, 000 70, 000	15, 000	15, 00 1, 430, 72 70, 00
Cape Fear river above Wilmington	1884 1886 1886 1890 1829 1880 1881		70, 000 140, 000	15,000	15, 00 1, 430, 72 70, 00 140, 00
Cape Fear river above Wilmington	1884 1886 1886 1890 1829 1880 1881 1881		70, 000 140, 000 225, 000	15, 000	15, 00 1, 430, 72 70, 00 140, 00 225, 00
Cape Fear river above Wilmington	1884 1886 1886 1890 1829 1880 1881 1882 1884		70, 000 140, 000 225, 000 200, 000	15, 000	15, 00 1, 430, 72 70, 00 140, 00 225, 00 200, 00
Cape Fear river above Wilmington	1884 1886 1886 1890 1829 1880 1881 1882 1884 1886		70, 000 140, 000 225, 000 200, 000 157, 500	15, 000	15, 00 1, 430, 72 70, 00 140, 00 225, 00 200, 00 157, 59
	1884 1886 1886 1890 1829 1880 1881 1882 1884		70, 000 140, 000 225, 000 200, 000	15, 000 170, 000 5, 000	15, 00 1, 430, 72 70, 00 140, 00 225, 00 200, 00

CONGRESSIONAL APPROPRIATIONS—Continued.

TABLE 39.—APPROPRIATIONS FOR ATLANTIC COAST AND GULF OF MEXICO—Continued.

ATLANTIC COAST—Continued.

LOCALITIES.	Date of earliest appropriation.	Appropriations up to and includ- ing 1879.	Appropriations from 1880 to 1889, inclusive.	Appropriations September 19, 1890.	Total appropris
RTH CAROLINA - Continued.	1000		47.000	· —————————	
Black river	1886		\$3,000	1	\$3 , 00
Contentnea creek	1881	·····	10,000		10, 00
	1882 1884	i	10, 000 5 , 000		10, 00 5, 00
	1886		15, 000		5, 00 15, 00
	1888		5, 000	AT 000	5, 00
	1890			\$7,000	7. 00
Total for Contentnea creek	1881		45, 000	7, 000	52, 00
Croatan sound	1852	\$50,000 →		ļ	50,00
Currituck sound	1878	45, 000			45, 90
Vullituda Bound	1880		25, 000		25, 06
	1881 1882	j	30,000		30, 00
l	1884		20, 000 5, 000	·	20, 00 5, 00
	1886		10, 000		10.00
	1888		7, 500	10.000	7,50
	1890	45.000		10,000	10,00
Total for Currituck sound	1878	45,000	97, 500	10,000	152, 50
3denton harbor	1878	5, 000	10.000	i !	5, 00
	1884 1886		10, 000 2, 000		• 10,000 2,000
Total for Edenton harbor	1878	5,000	12, 000		17, 000
Fishing creek.	1890			i 10.000	
Lillington river	1881		3, 000	10,000	10,000
minington river	1882		3, 000		3, 000 3, 000
Total for Lillington river	1881		6, 000		6,000
ockwood Folly river	1890			5, 00 0	5, 000
Lumber river	1888		5, 000		5, 000
	1890			5, 000	5,000
Total for Lumber river	1888		5, 000	5, 000	10, 000
Mackey creek	1890			15, 000	15,000
Meherrin river	1882	'	5, 000		5,000
Neuse river	1878	85,000	·	ĺ	85,00
	1880		45, 000		45,00
	1881 1882		30, 000 35, 000		30,00
	1884		20,000		35, 00 29, 00
	1886		22, 500		22, 50
	1888 18 9 0		15, 000	90.000	15,00
	1090			20,000	30, 0
Total for Neuse river	1878	85, 000	167, 500	20,000	272, 5
Newbern inlet (Newbern to Beaufort)	1882		10,000	j	10, €
•	1886 1888		10, 000 15, 000		10. 4
Total for Newbern inlet	1882		35, 000	1	35,
Total for New Join Inter	1002	•••••	33, 000	i	
New river	1836 1882	5, 000	5, 000		5. 5. 5.
	1884		5, 000		5.
	188 6 1888		10, 000 3, 000		10. 4 3. 4
	1890		·	10, 000	10.
Total for New river	1836	5,000	23,000	10, 000	38,
Nam Dinon shannol (Boanfort must to Vam sime)	1005	42 000			
New River channel (Beaufort river to New river)	1837 1886	45, 000	10, 000		45, <i>0</i> 10, 0
	1888 1890		5, 000	15, 000	5, 0 15, 6
Total for New River channel	1837	45, 000	15, 000	15,000	75, 00
		!	20,000		
Ocracoke inlet	1826	133, 750	· • • • • • • • • • • • • • • • • • • •		133,750
	1890	•••••		90,000	90,000

TABLE 39.—APPROPRIATIONS FOR ATLANTIC COAST AND GULF OF MEXICO—Continued.

ATLANTIC COAST—Continued.

ATHAN	110 0020				
LOCALITIES.	Date of earliest appropria- tion.	Appropriations up to and includ- ing 1879.	Appropriations from 1880 to 1889, inclusive.	Appropriations September 19, 1890.	Total appropria tions to date.
NORTH CAROLINA-Continued.					
Pamlico and Tar rivers	1836	\$31,000			\$31,000
	1880		\$9,000		9, 00
	1881	************	8, 000		8,00
	1882 1884		10,000 5,000		10, 00 5, 00
	1886		5, 000		5, 00 5, 00
	1888		10, 000		10,00
	1890		10,000	\$10,000	10,000
Total for Pamlico and Tar rivers	1836	31,000	47,000		88,00
Total for Faintico and Tar Fivers	1650	31,000	41,000	10,000	00,00
Proquotank river	1829 1890	80		3, 000	3, 0 0
Total for Pasquotank river	1829	80	' 	3, 000	3, 08
Perquimans river	1876	2, 500	 '		2, 50
Roanoke river	1871	45,000	·	!	45, 00
	1882		5, 000		5,00
	1884		3, 000	i	3,000
	1886		20,000	1	20, 00
	1888		40, 000		40,00
	1890			25, 000	25, 00
Total for Roanoke river	1871	45, 000	68, 000	25, 000	138, 00
Scuppernong river	1878	4,000			4, 00
bouppermang invol	1880	1,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,	1,000	· · · · · · · · · · · · · · · · · · ·	1,00
	1881		1,000	1	1,00
	1884		2, 000		2,00
Total for Scuppernong river	1878	4, 000	4, 000		8, 00
Town creek	1881		1,000		1, 00
Trent river	1879	7,000			7, 00
Tremt river	1880	1,000	10,000		10, 00
	1881		5,000		5,00
	1882		10, 000		10,00
•	1884		10,000		10,00
	1886	1	3, 500	1	3, 50
	1888 1890		5, 000	5, 000	5, 00
m + 1.6 m - + +			40.500		5,00
Total for Trent river	1879	7, 000	43, 500	5, 000	55, 50
Washington harbor	1852	5, 000			5, 00
Yadkin river	1879	20,000			20,00
	1880 1881		20,000		20, 00
	1882		12,000		12,00
	1886		25, 000 10, 000		25, 00 10, 00
	1888		10,000		10,00
	1890			5,000	5,00
Total for Yadkin river	1879	20,006	77, 000	5, 000	102, 00
OUTH CAROLINA	1836	550, 000	1, 895, 000	583, 000	3, 028, 00
Ashepoo river	1872	1, 300			1, 30
Ashley river		,		1	
and the state of t	1880		1,000		1,00
	1881 1884		1,500		1,50
	1886	1	2, 000 1, 000		2,00 1,00
Total for Ashley river	1880		5, 500		5, 50
Beaufort river	1890			12, 500	12, 50
Clark creek	1			12,000	
CHECK CIPER	1888 1890		2, 500	2, 500	2, 50 2, 50
Total for Clark creek	1888		2, 500	2,500	5, 00
Charleston harbor	1852	544, 700			544, 70
	1880		175, 000		175, 00
	1881		175, 000		175, 00
	1882		300,000		300, 00
	1884		250, 000		250, 00
	1886 1888		187, 500		187, 50
	1890		850, 000	370,000	350, 00 370, 00
Total for Charleston harbor		244 800	1 400 200	<u> </u>	
	1852	544, 700	1, 437, 500	370, 000	2, 352 , 20

CONGRESSIONAL APPROPRIATIONS—Continued.

TABLE 39.—APPROPRIATIONS FOR ATLANTIC COAST AND GULF OF MEXICO—Continued.

ATLANTIC COAST-Continued.

LOCALITIES.	Date of earliest appropria- tion.	Appropriations up to and includ- ing 1879.	Appropriations from 1880 to 1889, inclusive.	Appropriations September 19, 1890.	Total appropria- tions to date.
UTH CAROLINA—Continued.		1	1		
Congaree river	. 1886 1888		\$7,500 7,500	****************	\$7,500 7,500
	1890		***************************************	\$5,000	5, 0,4
Total for Congaree river	1886	,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,	15, 000	5, 000	20, 000
Edisto river	1882		8, 000 5, 000	***************************************	8, 000 5, 000
	1886		3, 000		3,000
	1888 1890		5,000	5,000	5,000
Total for Ediato river	1882		21,000	5, 000	26,000
	1			1	
Georgetown harbor	1836 1882	\$4,000	7,000		4, 000 7, 000
	1884 1886		5, 000 5, 000		5, 000
	1888		7, 500		5, 00 7, 50
	1890			8,000	8,00
Total for Georgetown harbor	. 1836	4, 000	24, 500	8, 000	36 , 500
Classa De Jos misson	1880		7, 000		7.00
Great Pedec river	1881		6, 000		7, 00 6, 00
	1882 1884		6, 000 8, 000		6,00 8,00
	1886		20, 000		20,00
	1888 1890		20, 000	12, 500	20, 00 12, 50
Total for Great Pedee river	. 1880		67, 009	12, 500	79, 50
	1000				
Little Pedee river	1888 1890		5, 000	5, 000	5, 00 5, 00
Total for Little Pedee river	1888		5, 000	5,000	10,00
Mingo creek	1888		5, 000		5,000
	1890			5,000	5,000
Total for Mingo creek	. 1888		5,000	5, 000	10,000
Salkehatchie river	1882 1884		5, 000 3, 000		5, 000 3, 000
	1886		2,000		2,000
	1888 1890		3,000	5, 000	3, 000 5, 000
Total for Salkehatchie river	į		13,000	5,000	18,000
				1	
Santee river	. 1881 1882		22, 000 20, 000		22,000 20.00
	1884		15,000		15, 00
	1886 1888		18, 750 24, 000		18, 75 24, 0C
•	1890			30,000	30.0
Total for Santee river	. 1881		99, 750	30,000	129,7
Wappoo cut	. 1881		10, 000		10,0=
	1882		10, 000		10,
	1884 1886		3, 000 5, 000		3.0
	1888		5, 000	***************************************	5.C
	1890			10,000	10,
Total for Wappoo cut	. 1881		33,000	10,000	43, 🕶
				1	
Wateree river	. 1881 1882		8, 000 15, 000		8. 4 15. 6
•	1884		5, 000		5.0
	1886 1888		7, 500 12, 000		7 5- 12 0 0
	1890			12, 500	12. 50
Total for Wateree river	. 1881		47, 500	12, 500	60, 00
Winyah bay	. 1886		18, 750		18, 750
······································	1888		100,000		100,000
	1890			100, 000	100,000
Total for Winyah bay	1886		118, 750	100,000	218, 750

CONGRESSIONAL APPROPRIATIONS—Continued.

TABLE 39.—APPROPRIATIONS FOR ATLANTIC COAST AND GULF OF MEXICO—Continued.

ATLANTIC COAST-Continued.

LOCALITIES.	Date of earliest appropriation.	Appropriations up to and includ- ing 1879.	Appropriations from 1880 to 1889, inclusive.	Appropriations September 19, 1890.	Total appropria tions to date.
OUTH CAROLINA—Continued.					
Congaree river	1886 1888 1890		\$7,500 7,500	\$5,000	\$7,50 7,5 5,0
Total for Congarce river	1886		15,000	5, 000	20, 0
Edisto river	1882		8, 000		8,0
	1884 1886		5, 000 3, 000		5, 0 3, 0
	1888 1890		5, 000	5, 000	5, 0 5, 0
Total for Edisto river	1882		21,000	5, 000	26, 0
Georgetown harbor	1836	\$4,000	· · · · · · · · · · · · · · · · · · ·		4.0
	1882 1884		7, 000 5. 000		7, 0 5, 0
	1886		5, 000		5, 0
	1888 1890		7, 500	8, 000	7, 5 8, 0
Total for Georgetown harbor	Ì	4, 000	24, 500	8, 000	36, 5
-			7 000		
Great Pedee river	1881		7, 000 6, 000		7, 0 6, u
	1882		G, 000		6,0
	1884 1886		8, 000 20, 000		8, 0 20 , 0
	1888		20, 000		20, 0
Motel for Creek Delegation	1890 1880	ļ		12,500	12, 5
Total for Great Pedee river			67, 009	12, 500	79, 5
Little Pedee river	1888 1890		5, 000	5, 000	. 5. 0 5. 0
Total for Little Pedee river	1888		5, 000	5,000	10, 0
Mingo creek	1888 1890		5, 000	E 000	5, 0
Total for Mingo creek	1888		5, 000	5, 000	10,0
· ·	1000				
Salkehatchie river	1882 1884		5, 000 3, 000		5, 0 3, 0
	1886		2, 000		2,00
	1888 1890		3, 000	5, 000	3, 00 5, 00
Total for Salkehatchie river	1882		13,000	5, 000	18,00
Santee river	1881	<u> </u>	22, 000		90.00
Daily 00 111 01	1882		20, 000		22, 00 20, 00
	1884 1886		15, 000 18, 750		15, 00 18, 750
	1888		24, 000		18, 730 24, 003
•	1890			30, 000	30, 0.1
Total for Santee river	1881		99, 750	30,000	129, 756
Wappoo cut	1881		10, 000		10,000
	1882 1884		10, 000 3, 000		10, 000 3, 000
	1886		5, 000		5, 000
	1888 1890		5, 000	10, 000	5, 6 00 10, 000
Total for Wappoo cut	1881		33, 000	10,000	43,000
			55,555		
Wateroe river	1881 1882		8. 000 15, 000		8, 000 15, 000
•	1884		5, 000		5.000
	1886 1888		7, 500 12, 000		7 500 12,000
	1890			12, 500	12.500
Total for Wateree river	1881		47, 500	12, 500	60,006
Winyah bay	188 6 1888		18, 750 100, 000		18, 750 100, 000
	1890			100, 000	100,000
Total for Winyah bay	1886	·!	118, 750	100,000	218, 75

TABLE 39.—APPROPRIATIONS FOR ATLANTIC COAST AND GULF OF MEXICO—Continued.

• ATLANTIC COAST—Continued.

LOCALITIES.	Date of earliest appropriation.	Appropriations up to and includ- ing 1879.	Appropriations from 1880 to 1889, inclusive.	Appropriations September 19, 1890.	Total appropria- tions to date.
GEORGIA (on the Atlantic)	1826	\$1,120,507	\$1, 285, 609	\$512,500	\$2, 918, 706
Altamaha river	1881	Liver of the state	5, 000	C.C. West Dress Co.	5,000
Altamana III II	1882	*****************	15, 000		15,000
	1884		15, 000		15,000
	1886	***********	20, 000	· · · · · · · · · · · · · · · · · · ·	20,000
	1888 1890	*************	10,000	15 000	10,000
	1000	manannann		15, 000	15, 000
Total for Altamaha river	1881		65, 000	15, 000	80,000
Brunswick harbor	1836	30,000			30, 000
	1880		10,000		10,000
	1881	**************	5,000		5,000
	1882 1884		25, 000		25, 000
	1886	*************	10, 000 22, 500	***************************************	10,000 22,500
	1888		35, 000		35, 000
	1890	****************	00,000	35,000	35, 000
Total for Brunswick harbor	1836	30,000	107, 500	35,000	172, 500
	1				
Darien harbor	1878 1830	8,000		25, 000	8, 000 25, 000
Total for Darien harbor	1878	8, 000		25,000	33, 000
]	
Jekyl croek	1888 1890		5, 000	7, 500	5, 000 7, 500
Total for Jekyl creek	1888		5, 000	7, 500	12, 500
Ocmulgee river	1076	27.000		<u> </u> :	27.000
Ocmulgee river	1876 1880	37, 000	7, 000	•••••	37, 000 7, 000
•	1881		5,000	į	5, 000
	1882		5, 000		5,000
· · · · · · · · · · · · · · · · · · ·	1864		3, 000		3,000
· · · · · · · · · · · · · · · · · · ·	1886		7, 500		7,500
	1888 1890		15, 000	30,000	15, 000 30, 000
Total for Ocmulgee river	1876	37, 000	42, 500	30,000	109, 500
Oconee river	1878	11,500		1	11 500
Oconoe river	1880	11,.00	1,500	1	11,500 1,500
	1881		2, 500		2, 500
	1882		5,000		5,000
	1884		3,000		3,000
	1886 1888		9,000		9,000
	1890		12, 500	25, 000	12, 500 25, 000
Total for Oconee river	1878	11, 500	33, 500	25, 900	70,000
Romerly marsh			10,000		10,000
	1884		10,000		10,000
	1886 1888		17, 475 4, 634		17, 475 4, 634
Total for Romerly marsh	1882		42, 109		42, 109
St. Augustine creek	1879	5, 000			5, 000
Savannah harbor	1872	452, 000		<u> </u>	452, 000
**************************************	1880	202, 000	65, 000		65, 000
•	1881 1890		65, 000	350, 000	65, 000 350, 000
Total for Savannah harbor	1872	452, 000	130, 000	350, 000	932, 000
Second dec	. 1000	F44 004			
Savannah river	1826 1880	577, 097	16, 000		577, 097
	1881		38, 000		16, 000 38, 000
	1882		225, 000		225, 000
	1884		215, 000		215, 000
	1886		165, 000		165,000
	1888		201, 000	GP 000	201,000
	1890		·	25, 000	25, 000
Total for Savannah river	1826	577, 097	860,000	25, 000	1. 462, 097

CONGRESSIONAL APPROPRIATIONS—Continued.

TABLE 39.—APPROPRIATIONS FOR ATLANTIC COAST AND GULF OF MEXICO-Continued.

ATLANTIC COAST-Continued.

LOCALITIES.	Date of earliest appropria- tion.	Appropriations up to and includ- ing 1879.	Appropriations from 1880 to 1889, inclusive.	Appropriations September 19, 1890.	Total appropria- tions to date.
FLORIDA (on the Atlantic)	1829	\$146,570	\$982,000	\$240,500	\$1, 369, 670
Chipola river	1835	9,000			9,000
Indian river	1844	6, 500			6,500
Key West harbor	1882 1886 1888 1890		25, 000 2, 500 25, 000	40,000	25, 000 2, 500 25, 000 40, 000
Total for Key West harbor	1882		52, 500	40,000	92, 500
Oeklawaha river	1835 1890	10,000		10, 000	10, 000 10, 000
Total for Ocklawaha river	1835	10,000	,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,	10,000	20,000
St. Augustine harbor	1829 1888 1890	33, 570	35,000	20,000	33, 570 35, 600 20, 000
Total for St. Augustine harbor	1829	33, 570	35, 000	20,000	88, 570
St. John river	1852 1880 1881 1882 1884 1886 1858	87,000	139, 000 100, 000 150, 000 155, 000 150, 000 175, 000		87, 000 139, 000 100, 000 150, 000 155, 000 175, 000
St. John river (Volusia bar)	1890 1880 1881 1882 1884 1886 1888 1890		5, 000 5, 500 5, 000 2, 000 7, 500 500	170,000	170,000 5,000 5,500 5,000 2,000 7,500 500
Total for St. John river	1852	87,000	894, 500	170, 500	1, 152, 000
Yellow river	1839	500			500

GULF OF MEXICO.

FLORIDA (on the Gulf of Mexico)	1828	230, 280	579, 500	135, 500	945, 280
Apalachicola bay and river	1828	75, 250			75, 250
	1880	10,200	12,000		12, 00 C
f	1881		11, 500		11.50-0
	1882		27, 000		27.00
	1884		11,000		11.00
i i	1886		13, 000		13.00
!	1888				
!		••••••	22, 000		22, 00
<u>;</u>	1890		•••••••••	22, 000	22, 00
Total for Apalachicola bay and river	1828	75, 250	96, 500	22, 000	193, 7
·		!			
Caloosahatchee river	1882	1 :	5,000		5, 0
	1884		5, 000		5.0
1	1886		4,000		4 0
	1888		10,000		10.0
	1890		10,000	9.800	
	1990		••••••	3, 600	3, 6
Total for Caloosahatchee river	1882		24, 000	3, 600	27,6
Cedar Keys harbor.	1872	67, 500			67,5
	1880		15, 000		15.0
!	1884		5, 000		5.0
	1886		7, 000		7 (
	1868		7, 500		7.5
	1890		1,500	2,500	
	1000			2,500	4,0
Total for Cedar Keys harbor	1872	67, 500	34, 500	2, 500	104, 5
_		!			
Lagrange bayou	1882		2,000		2,000
	1886		2, 000		2,000
	1888		3, 000		3,000
•	1890		•••••	3,000	3, 000
Transfer Learning beauty	1000	·			10,000
Total for Lagrange bayou	1882	· • • • · · · · · • • • • • • • • • • •	7, 000	3,000	10,000

TABLE 39.—APPROPRIATIONS FOR ATLANTIC COAST AND GULF OF MEXICO—Continued.

GULF OF MEXICO—Continued.

LOCALITIES.	Date of earliest appropriation.	Appropriations up to and includ- ing 1879.	Appropriations from 1880 to 1889, inclusive.	Appropriations September 19, 1890.	Total appropria- tions to date.
LONIDA (on the Gulf of Mexico)—Continued.	1000		1204 502		
Manatee river	1882 1886	***************	\$12,000	***************************************	\$12,00
ı	1888	······································	11,000 5,000		11,00
	1890	******************	5,000	\$6, u00	5, 00 6, 00
Total for Manatee river	1882	12000112	80.000		
Total for managed in of	1002		28, 000	8,000	84, 09
Ochlochney river	1833	\$ 5, 000	•••••••••••••••••••••••••••••••••••••••		5, 00
Pease river	1881		7,000		7,00
	1882		4,000		4, 00
	1886	•••••	7, 000	·····	7,00
	1890			35, 000	85, 00
Total for Pease river	1881		18, 000	35, 000	53, 00
Pensacola harbor	1878	30, 000			30, 00
	1880		40, 000		40,00
	1881		20,000		20, 00
	1882 1884		50, 000 55, 000		50, 00
	1886		20, 000		5 5, 00 2 0, 00
	1888		35, 000		20,00 35,00
	1890			25, 000	25, 00
Total Pensacola harbor	1878	30, 000	220, 000	25, 000	275, 00
St. Mark river	1000				•
St. Mark river	1828	37, 530	•••••	•••••	87, 53
Sarasota bay	1890		•••••••••	5, 000	5, 00
Suwanee river	1839	15, 000	• • • • • • • • • • • • • • • • • • • •		15,00
	1880		5, 000		5, 00
•	1881		3,000		3,00
	1882		5,000	····	5,00
	1884 1886		5, 000 5, 000		5, 00
	1888		15,000	l	5, 00 15, 00
	1890			3, 000	3,00
Total for Suwanee river	1839	15,000	38, 000	3,000	56, 00
Tampa bay	1880		10,000		10.00
Tampa (a)	1881		10, 000 10, 000		10, 00 10, 00
	1882		20,000		20,00
	1884	•••••	20,000		20,00
	1886 1888		10,000	·····	10, 00
•	1890		25, 000	25, 000	25, 00 25, 00
Total for Tampa bay	1880		95, 000	25, 000	120,00
			53,335		250,00
Withlacoochee river	1881		7, 500		7, 50
	1884 1886	•	3, 000 3, 000		8,00
	1888		5, 000		3, 00 5 , 00
	1890		•••••	5, 400	5, 40
Total for Withlacoochee river	1881		18, 500	5, 400	23, 90
EORGIA (a)	1874	23, 300	4,000		27, 30
Etowah river	1876	1, 300			1, 30
Costanaula and Coosawattee rivers	1874	22, 000			22, 00
	1880		2, 000		2, 00
•	1881 1882		1,090		• 1,00
	1002		1, 000		1,00
	1874	22, 000	4,000		26, 00
Total for Oostanaula and Coosawattee rivers.		1	1 201 550	524,000	2, 647, 50
	1826	821, 752	1, 301, 750	1	
LABAMA			1,301,750		55 M
	1878 1880	1	25, 000		25, 00
LABAMA	1878 1880 1881		25, 000 20, 000		25, 0 0 20, 00
LABAMA	1878 1880 1881 1882		25, 000 20, 000 20, 000		25, 0 0 20, 00 20 , 00
LABAMA	1878 1880 1881 1882 1884		25, 000 20, 000 20, 000 10, 000		25, 00 20, 00 20, 00 10, 00
LABAMA	1878 1880 1881 1882 1884 1886 1888		25, 000 20, 000 20, 000		25, 00 20, 00 20, 00 10, 00 15, 00
LABAMA	1878 1880 1881 1882 1884 1886		25, 000 20, 000 20, 000 10, 000 15, 000	20, 000	55, 00 25, 00 20, 00 20, 00 10, 00 15, 00 20, 00 20, 00

 \boldsymbol{a} Rivers emptying into other rivers which flow into the Gulf of Mexico.

CONGRESSIONAL APPROPRIATIONS—Continued.

TABLE 39.—APPROPRIATIONS FOR ATLANTIC COAST AND GULF OF MEXICO—Continued.

GULF OF MEXICO—Continued.

LADAMA—Continued: Black Warrier river. 184	LOCALITIES.	Date of earliest appropriation.	Appropriations up to and includ- ing 1879.	Appropriations from 1880 to 1889, inclusive.	Appropriations September 19, 1890.	Total appropria tions to date.
Total for Black Warrior river. 1884	ALABAMA—Continued.		<u> </u>			
1860	Black Warrior river	1884		\$50, 000 56 350	• • • • • • • • • • • • • • • • • • • •	
1500 150, 000 150, 000 150, 000 150, 000 174, 32 150, 000 174, 32 150, 000 174, 32 150, 000 174, 32 150, 000 174, 32 150, 000 150, 00		1888				30, 23 118 00
Cahawba river				- •	\$150,000	
Chhawba river	Total for Black Warrior river	1884		224, 250	150.000	374. 25
Total for Cahawha river 1825 77,000 75,000 7		!		221, 200	100,000	51 3.2
Total for Cahawba river 1982 17, 500 7	Cahawba river					
Mobile harbor and Pass au Heron						
1800	Total for Cahawba river	1882		37, 500		37,50
1800	Mahila hanhan and Pass on Haran	1000	4788 789			700 75
1852 125,000	RECORD DATE OF ANGLE ASS RU INCION	1880	\$100, 152	125, 000		125,00
1848 200, 000 20				100, 000		
1886 250,000 200,000		1882			·····	
1888 250,000 350,000 250,000						
1800 350,000 350,000 350,000 350,000 350,000 2,006,75						950.00
Tallaposa river . 1882					350, 000	
1984 10,000 12,000 12,000 13,000 14,000 15,	Total for Mobile harbor and Pass au Heron	1826	766, 752	890, 000	350, 000	2, 006, 75
1984 10,000 12,000 12,000 13,000 14,000 15,	Tallapoosa river	1382		15, 000		15 00
1886 7,500 7,50 7,50 7,50 1886 1888 7,500 7,50 1888 7,500 7,50 1888 7,500 7,50 1889 1889 18,500 14,000 44,0		1884		10, 000		10,00
Total for Tallaposa river. 1882		1886		7, 500		
Total for Tallapoea river. 1882				7, 500	4,000	
ISSISSIPPI	Total for Tallapoosa river	1882		40,000	4,000	44.00
Biloxi harbor. 1982		!	72 400	·	·	
1888 12,500 12,500 12,500 12,500 12,500 12,500 12,500 18,	1881881771	1827	78, 400	311, 125	60,000	447, 52
1888 18,500 9,000 18,5	Biloxi harbor				l	
Total for Biloxi harbor						
Noxubee river				18, 500	9, 020	
1881 88,000 8,600 10,000 10,000 1894 7,500 7,550 7,550 1886 7,500 7,550 1886 7,500 7,550 1886 7,500 7,550 1880 8,000 8,000 8,000 8,000 8,000 8,000 8,000 8,000 1890 8,000 1890 8,000 1891 4,000 8,000 1891 4,000 8,000 1892 8,000 8,000 1893 25,000	Total for Biloxi harbor	1882		36,000	9,000	45, 00
1881 88,000 8,600 10,0		i				
1882 10,000 110,000 17,500 1886 7,500 7,500 1886 7,500 7,500 1888 6,000 1,50	Noxubee river			12,000	₁	
1894 7,500 7,250 1898 7,500 7,500 1898 5,000 3,000	•			8, 000 10, 000		
1886 7,500 7,300 1,500						
1888 5,000 3,000						
Total for Noxubee river. 1880 50,000 3,000 53,000 Old Town creek. 1882 3,000 3,000 3,000 30,000 Pascagoula river. 1827 70,400 20,000 20,000 20,000 1841 4,000 4,000 1842 3,000 3,000 3,000 1884 3,000 3,000 3,000 1886 23,000 20,000 25,000 1886 23,000 20,000 25,000 1886 27,000 20,000 27,000 20,000 177,400 Total for Pascagoula river 1827 70,400 87,000 20,000 177,400 1890 27,500 1891 27,500 1891 1890 27,500 27,500 1891 1890 27,500 1891 1891 27,500 17,500 17,500 1891 1892 17,500 17,500 17,500 1891 1892 17,500 112,500 1891 1892 17,500 112,500 112,500 113,500 112,500 112,500 112,500 113,500	•					
Old Town creek. 1882 3,000 3,000 3,000 Pascagoula river 1827 70,400 20,000 20,000 30,000 1881 4,000 4,000 4,000 1882 5,000 5,000 5,000 1882 7,000 20		1890		•••••	3,000	8, 000
Pascagoula river	Total for Noxubee river	1880		50, 000	3, 000	53, 000
Pascagoula river	Old Town creek	1882		3, 000		2,000
1880 20,000 20,000 20,000 1881 4,000 4,000 4,000 1882 8,000 8,000 1884 3,000 25,000 25,000 25,000 25,000 27,000 27,000 20,000 27,000 20,000 20,000 20,000 27,000 20,000 20,000 20,000 27,000 20,000 20,000 27,000 20,000		1		3,555		9,00
1881	Pascagoula river		70, 400			
1882			·····		·····	
1884 3,000 25,000 1886 25,000 25,000 25,000 25,000 25,000 25,000 25,000 26,000 27,000 27,000 27,000 20,000 27,000 20,000				, 1 ,000		
1886 25,000 25,000 1888 27,000 20,000 27,000 20,000 27,000 20,00						
Total for Pascagoula river 1827 70,400 87,000 20,000 177,490		1886		25, 000		
Total for Pascagoula river 1827 70,400 87,000 20,000 177,400 Pearl river 1879 6,000 37,500 37,500 37,500 37,500 1881 27,500 37,500 17,				27, 000		
Pearl river 1879 8,000 37,500		1890			20,000	20,00
1880 37,500 37,	Total for Pascagoula river	1827	70, 400	87, 000	20, 000	177, 49
1881	Pearl river		6, 000			6, 00
1882 17,500 17,550 12,500 12,500 12,500 12,500 17,600 17,500 12,500 12,500 17,600 17,600 17,600 17,600 17,600 17,600 17,600 17,600 17,600 17,600 17,600 1888 22,500 28,00	•		-	37, 500	· · · · · · · · · · · · · · · · · · ·	37.50
1884 12,500 12,500 1886 17,625 17,625 1888 22,500	•	1881		21, 000 17 800	• • • • • • • • • • • • • • • • • • • •	21,3L 17 &C
1886 17, 625 17, 625 1888 1888 22, 500 22, 500 22, 500 22, 500 22, 500 22, 500 22, 500 22, 500 22, 500 22, 500 22, 500 22, 500 22, 500 22, 500 22, 500 20,				12, 500		11,56
1888 22,500 22,500 22,500 28,000 28,		1×86		17, 625		17.6=
Total for Pearl river		1888			90 000	22,5
UISIANA. 1836 7.767,489 591,647 220,000 8,579,1 Amite river. 1880 8,000 8,000 5,000 1881 5,000 5,000 1886 2,000 2,000 1888 5,000 38,000	Total for Pearl river		8 000	135 195		
Amite river 1880 8,000 8,000 18,0000 18,000 18,000 18,000 18,000 18,000 18,000 18,000 18,000 18,0000		,				•
1881 5,000 5,000 1886 2,000 2,000 1888 5,030 5,000 1800 38,000 38,000	DUISIANA	1836	7. 767, 489	591, 647	220, 000	8, 579, 1
1886 2,000 2,000 1888 5,000 5,000	Amite river					8.0
1888 5,000 5,000 1800 38,000 38,000						3, V
		1888				5,0
Total Yor Amite river		1890			38, 000	38,0
	Total for Amite river	1880	,	20,000	38, 000	58,

TABLE 39.—APPROPRIATIONS FOR ATLANTIC COAST AND GULF OF MEXICO—Continued. GULF OF MEXICO—Continued.

LOCALITIES.	Date of earliest appropriation.	Appropriations up to and includ- ing 1879.	Appropriations from 1880 to 1889, inclusive.	Appropriations September 19, 1890.	Total appropria- tions to date.
OUISIANA—Continued. Bogue Chitto river.	1890			at 000	
Dogue Chitto Hvol	1690			\$5,000	\$5, 0 00
Calcasieu river and pass		\$15,000		************	15, 000
-	1881 1882		\$15,000 10,000	.,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,	15,000 10,000
· · · · · · · · · · · · · · · · · · ·	1884	****************	6, 500		6,50
	1886 1888	*******************************	16, 255	,	16, 25 10, 00
	1890	*****************	10,000	75, 000	75,00
Total for Calcasieu river and pass	1872	15,000	57, 765	75. 000	147, 75
Lake Ponchartrain harbor	1852	25, 000			25, 00
Tu		24,550			-
Plaquemines bayou	1888 1890	`	100,000	100, 000	100, 00 100, 00
Total for Plaquemines bayou	1888		100, 000	100, 000	200,000
Tangipahoa river		2, 500			2, 50
	1880 1881	,	5, 000 2, 000		5, 000 2, 000
	1884	***************************************	2,000		2,00 2,00
Total for Tangipahoa river	1872	2, 500	9,000		11,50
Tchefuncta and Bogue Falia rivers	1872	6,000			6,00
•	1881 1882		1,500		1,50
	1886		1, 500 2, 500		1, 50 2, 50
	1890			1,000	1,00
Total for Tchefuncts and Bogue Falls rivers	1872	6, 000	5, 500	1,000	12, 50
Tickfaw river	1881		2,000		2,00
· · · · · · · · · · · · · · · · · · ·	1882		2, 000		2,00
•	1886 1888		2, 000 1, 000		2,00 1,00
	1890			1,000	1, 00
Total for Tickfaw river	1861		7, 000	1,000	8,00
Vermilion river	1880		5, 000	i	5, 00
	1881		4,900	¦	4, 90
Total for Vermilion river	1880		9, 900		9, 90
Delta and passes of the Mississippi river:					
Channel and general improvements	1836 1850	2, 214, 989 354, 000	382, 492		2, 214, 98 736, 49
Jetties	1875	5, 150, 000	302, 402		5, 150, 00
Total for delta and passes of the Mississippi river	1836	7, 718, 989	382, 492		8, 101, 48
TEXAS	1852	1, 247, 200	4, 342, 500	893, 150	6, 482, 85
Aransas pass and bay	1879	35, 000			35,00
·	1880 1881	ļ	65, 000 80, 000		. 65, 0 0
	1882		100,000		100,00
· · · · · · · · · · · · · · · · · · ·	1884 1886		100, 000 101, 250		100, 00 101, 25
	1888		100, 000		100, 00
Total for Aransas pass and bay	1879	35, 000	546, 250		581, 25
Brazos river	1880		40, 000	1	40,00
	1881		40,000		40,00
ļ	1882 1884		50, 000 10, 000		50, 00 10, 00
Total for Brazos river	1886		18,750		18, 75
			100, 100		
Brazos Santiago harbor	1878 1880	6,000	25,000		6, 00 25, 00
	1881		75, 000		75,00
	1882 1884		60, 000 25, 000		60,00 25,00
		1	37, 500		37, 5
i	1886		51,500		01,0
	1886 1888		25, 000		25, 00

CONGRESSIONAL APPROPRIATIONS—Continued.

TABLE 39.—APPROPRIATIONS FOR ATLANTIC COAST AND GULF OF MEXICO—Continued.

GULF OF MEXICO-Continued.

LOCALITIES.	Date of earliest appropria- tion.	Appropriations up to and includ- ing 1879.	Appropriations from 1880 to 1889, inclusive.	Appropriations September 19, 1890.	Total approprie tions to date.
XAS—Continued.		i			
Buffalo bayou	1881		\$25,000		\$25 , 0
	1882	•••••	50, 000		50 , 0
	1884 1886		25, 000 10, 750	¦	25 . 0
	1888		18, 750 25, 000		18.7
	1890		20,000	\$25,000	25, 0 25, 0
	. 1000				
Total for Buffalo bayou	1881 ,	·	143, 750	25, 000	168,7
Cedar bayou	1890			18, 150	18. 1
Colorado riverof Texas	1852	\$20,000		1	20,0
~ · · · ·		202 202	i.	1	
Galveston bay	1872	282, 200		• • • • • • • • • • • • • • • • • • • •	282, 2
	1880		50, 000		50, 0
	1881		50, 000	j	50, 0
	1882 1888		94, 500		94, 5
	1890		. 100,000	40, 000	100, 0 40, 0
Total for Galveston bay	1872	282, 200	294, 500	40,000	616, 7
Palveston harbor	1870	653, 000	•		653 , d
ART COLON MARCOCI	1880		175, 000		175, 0
	1881		250, 000		250, 0
	1882		400,000		400, 0
	1886	1	300, 000		300,0
	1888		500, 000		500.0
	1890			500, 000	500, 0
Total for Galveston harbor	1870	653, 000	1, 625, 000	500, 000	2, 778, 0
Matagorda bay (Indianola harbor)	1876	70, 000			70, ú
	1880		50, 000		50,0
	1881		60,000	1	60, 0
	1882		60,000		60.0
•	1884		50, 000	,	50,0
	1886		37, 500		37,5
Total for Matagorda bay	1876	70,000	257, 500		327,5
Rio Grande river	1876	17, 000	:	••••	17,0
Sabine and Neches rivers	1878	29,000		I	29, 0
MADINO AND INCOMES ITTOLS	1880	28.000	10, 000		10.0
	1881		10,000		10, 0
	1882		9,000		9,0
	1884		7,000		7, 0
Total for Sabine and Neches rivers	1878	29, 000	36,000		65, 0
Sabine pass and bay	1875	113,000			113,00
	1880	110,000	50, 000		50,6
	1881		150, 000		150.00
	1882		150, 000		150,00
	1884		200, 000		200,000
	1886	1	198, 750		198,750
	1888		250, 000		250,000
	1890		·	300, 000	300,000
Total for Sabine pass and bay	1875	113,000	998, 750	300,000	1, 411, 750
San Antonio river	1852	1, 500		1	1,500
Survey of rivers and harbors	! 1852	5, 000			5, 000
Frinity river	1852	15, 500	! ! 		15, 500 4, 000
•	. 1880		4, 000		4,000
	1881		10,000		10,009
	1882		8,000		8,000
	1888 1890	!	12, 500	10, 000	12,500 10,000
	;			10,000	
Total for Trinity river	1852	15, 500	34, 500	10,000	60, 010

TABLE 39.—APPROPRIATIONS FOR ATLANTIC COAST AND GULF OF MEXICO—Continued. MISCELLANEOUS.

Arthur Kill (New York and New Jersey)	LOCALITIES.	Date of earliest appropriation.	Appropriations up to and includ- ing 1879.	Appropriations from 1880 to 1889, inclusive.	Appropriations September 19, 1890.	Total appropria tions to date.
Total for Arthur Kill.	Total	1828	\$1,321,500	\$ 3, 7 72, 35 0	\$998, 600	\$6, 092, 450
Total for Arthur Kill	Arthur Kill (New York and New Jersey)				7.00	10,000
Chattahoochee river (Alabama, Florida, and Georgia) 1555 1500 20, 000	Total for Arthur Kill	1			' 	17,000
1889 20,000 15,000 16,				10,000	1, 555	
1852 35, 500 15, 500 16, 500	Chattahoochee river (Alabama, Florida, and Georgia)	1880	35, 000			35, 000 20, 000
184						20, 00 25, 00
1888 20,000 20,000 1 1890 20,000 1 1890 20,000 1 1890 20,000 1 1890 20,000 1 1890 20,000 1 1890 20,000 1 1890 20,000 20,000 1 1890 20,000 20,000 1 1890 20,000 20,		1884		35, 000		85, 00
Total for Chattabooches river. 1800 20,000 20,000 21,000 20,000 21,000 20,000 21,000 20,000 21,000						20, 00 20, 00
Chataboochee and Flint rivers (Georgia)	•				20, 000	20, 00
Chineoteague bay inland waterway (Delaware and Virginia) 1888 18.756 50.000 50.000 1850 50.000 1850 50.000 1850 50.000 1850 50.000 1850	Total for Chattahoochee river	1835	35, 000	140, 000	20, 000	195, 00
Total for Chincoteague bay inland waterway 1888 1899 1888 35,000 1889 1890 10,000 1890 10,000 1892 1892 1892 1893 15,000 15,000 1899 1890 15,000 17,000 12,500 1899 1890 15,000 17,000 12,500 1899 1890 1890 1890 1890 1890 1890 18	Chattahoochee and Flint rivers (Georgia)	1874	70,000			70, 00
1890 50,000 5 1890 50,000 5 1890 50,000 5 1890 50,000 5 1890	Chincoteague bay inland waterway (Delaware and Virginia)					18, 75
Total for Chincoteague bay inland waterway 1889					50,000	50. 0 0 50. 0 0
thectawhatchee river (Alabama and Florida) 1833 35,000 7,000 1881 1800 7,000 1818 1818 10,000 1818 1818 115,000 1818 1818 115,000 1818 1818 115,000 1818 1818 115,000 1818 1818 115,000 1818 1818 1818 1818 1818 1818 1818	Total for Chinastee me has inlend waterway			89.750		
1880 7,000 1881 15,000 1881 15,000 1881 15,000 1881 1880 15,000 1881 1880 15,000 1881 1880 15,000 1881 1880 15,000 1881 1880 15,000 1881 1880 15,000 1881 1880 15,000 1881 1880 15,000 12,500 12,500 12,500 12,500 12,500 12,500 12,500 12,500 12,500 1881 1880 1	Total for Chincoleague day inland waterway	1880		08, 730	50,030	118, 75
1881 10,000 1882 20,000 1888 10,000 1888 1880 15,000 12,000 1881 1881 1882 1884	Choctawhatchee river (Alabama and Florida)		35, 000	7 000		35, 00
1854						7, 00 10. 00
1888 15,000 12,500 13,500 12,500 15,500 12,500 15,500 12,500 15,500 12,500 15,					•••••	20, 00 15, 00
Total for Chectawhatchee river. 1833 35,000 77,000 12,500 11 1876						15, 00
Total for Choctawhatchee river. 1833 35,000 77,000 12,500 11 Coosa river (Alabama and Georgia) 1876 1880 00,000 1881 00,000 1881 1888 1888 1888 1888 1888 1889 1888 18					19 700	10, 00 12, 50
1976 150,000 1 1881 00,000 1 1881 00,000 1 1881 1882 1 150,000 1 1881 1888	Tatal for Charterhatches vivos		25.000			
1880	Total for Choctawnatchee river	1833	35,000	77,000	12,500	124,50
1881 00.000 61 1882 55.700 61 1884 00.000 15	Coosa river (Alabama and Georgia)		150,000	ME (MA)		150,00
1882						75, 00 60, 00
1886				83, 700		83, 70
1886 60,000 150,000 151,000						50, 00 45, 00
Total for Coosa river		1888				60,00
Cumberland sound (Georgia and Florida) 1880 30,000 1 1881 100,000 11 1882 50,000 1 1884 75,000 1 1884 75,000 1 1885 112,500 1 1 12,500 1 1 1 1 1 1 1 1 1		1				150, 00
1881 100,000 11 1882 50,000 1 1884 75,000 1 1886 112,500 1 1886 112,500 1 1880 112,500 1 1880 112,500 1 1880 112,500 1 1880 112,500 1 1880 112,500 1 1880 112,500 1 1880 1881 1 1881 1 1881 1 1882 1 1883 1 1884 1 1885 1 1884 1 1885 1 1886	Total for Coosa river	1876	150,000	373, 700	150, 000	673, 70
1882 50,000 51,000 11,	Cumberland sound (Georgia and Florida)					80, 00
1844 75,000 1 1886 112,500 1 1880 112,500 1 1880 112,500 1 1880 112,500 1 1880 112,500 1 1 1880 112,500 1 1880 112,500 1 1880 1 1 1880 1 1 1880 1 1 1 1 1 1 1 1 1						100, 00 50, 00
1888 112,500 112,500 11 1880 1880 112,500 112,500 11 1880 1880 1880 1880 1880 1880 1880 1882 7,500 1882 7,500 1884 5,000 1886 20,000 1886 20,000 1880 1880 235,000 22 1880 1880 255,000 22 1880 1880 255,000 22 1880 1880 255,000 22 1880 255,000						75, 00
Total for Cumberland sound. 1880 1880 480,000 112,500 56						112, 5 0 11 2 , 50
Dan river (Virginia and North Carolina) 1880 1800 1800 1881 8,000 1882 7,500 1882 5,000 1886 20,000 1886 20,000 20,00		1890			112. 500	112, 50
1881 8,000 7,500 1884 5,000 5,000 1,431,000 250,000 2,24 2,24 2,24 2,25 2,	Total for Cumberland sound	1880		480, 090	112, 500	592, 50
1882 7,500 1884 5,000 5 1886 20,000 5 1886 20,000 5 1886 20,000 5 1886 20,000 5 1886 20,000 5 1886 20,000 20,0	Dan river (Virginia and North Carolina)			19, 000		10, 00
1884 5,000 1886 20,000 1880 50,500 1880 1880 50,500 1880 1880 10,500 1880 1880 12,000 1881 1886 12,000 1881 1886 12,000 1881 1888 1880 12,000 1881 1880 1880 12,000 1881 1880 1880 12,000 1881 1880 1880 12,000 1881 1880 1880 12,000 1881 1880 12,000 1881 1880 12,000 1881 1880 12,000 1881 1880 12,000 1881 1880 12,000 1881 1888 10,000 1881 1888 10,000 1881 1888 10,000 1881 1888 10,000 1881 1888 10,000 1881 1888 10,000 1881 1888 10,000 1881 1888 10,000 1888 12,000 12,000					•••••	8, 00 7, 50
Total for Dan river		1884		5,000		5, 00
Delaware river (Delaware, New Jersey, New York, and Pennsylvania)						20,00
1880	Total for Dan river.	1880		50,500		50, 50
1881	Delaware river (Delaware, New Jersey, New York, and Pennsylvania)		581, 000	235 000		581, 00 235, 00
1884 200,000 22 1886 210,000 22 1886 250,000 22 1890 250,000 22 1890 250,000 22 1890 250,000 24 250,000 25		1881		250, 000		250, 00
1886 210,000 22 1886 250,000 22 1886 250,000 22 250,000 22 250,000 22 250,000 22 250,000 22 250,000 22 250,000 22 250,000 22 250,000 22 250,000 22 250,000 22 250,000 22 250,000 22 250,000 22 250,000 22 250,000 23 250,000 250						286, 00 200 . 00
1890 250,000 24		1886		210, 000		210, 00
Total for Delaware river. 1836 581,000 1,431,000 250,000 2,20 Entrance to Dismal Swamp canal (North Carolina and Virginia) 1836 35,000				250,000	250, 000	250, 00 250, 00
Escambia and Conecuh rivers (Alabama and Florida)	Total for Delaware river.	1836	581, 000	1, 431, 000		2, 262, 00
1833 10,500 1830 1		1020	25 000	· ·		22 00
1880 8,000 1881 5,000 1882 12,000 1884 15,000 1886 12,000 1887 10,000	• · · · · · · · · · · · · · · · · · · ·					35, 00 10, 50
1881 5,000 1882 12,000 1884 15,000 1886 12,000 1888 10,000	Seculium and Conecul rivers (Ambania and Fiorida)	1880	10, 900			10, 50 8, 00
1884 15,000 1886 12,000 1887 10,000		1881	[······	5, 000		5, 00
1886 12,000 1888 10,000						12, 00 15, 00
		1886		12, 000	[·····	12, 00
				10,000	7,500	10, 00 7, 5
Total for Escambia and Conecul rivers. 1833 10,500 62,000 7,500	m. 14 m 11 12 12			80.000		80, 0

CONGRESSIONAL APPROPRIATIONS—Continued.

TABLE 39.—APPROPRIATIONS FOR ATLANTIC COAST AND GULF OF MEXICO—Continued.

MISCELLANEOUS-Continued.

LOCALITIES.	Date of earliest appropria- tion.	Appropriations up to and includ- ing 1879.	Appropriations from 1880 to 1889, inclusive.	Appropriations September 19, 1890.	Total appropria- tions to date.
Flint river (Georgia)	1878	\$17,000		Service and a service	\$17,000
The river (Georgia).	1880	42.1,000	\$20, 1100		20,000
	1881		15,000		15, 000
	1882		25, 000		25, 000
	1884		20, 000	***************	20, 000 20, 000
	1886 1888		20, 000 20, 000		20,000
	1890	******************	20,000	\$20,000	20,000
Total for Flint river	1878	17,000	120, 000	20,000	157,000
	1876	20,000			20,000
Little Narragansett bay (Rhode Island and Connecticut)	1880	20,000	5, 000		5, 000
	1881		5,000		5,000
	1882		8,000	**************	6,000
Total for Little Narragansett bay	1876	20,000	16,000		36,000
Nanticoke river (Delaware and Maryland)	1886		10,000		10,000
	1878		27.0273.7.233		20,000
Norfolk to Atlantic ocean (Virginia and North Carolina)		20,000			200
North Landing river (Virginia and North Carolina)	1879	25, 000	45 000		25, 000- 15, 000-
	1880 1881		15, 000 7, 500		7,500
	1882		8,000		8,000
Total for North Landing river	1879	25, 000	30, 500		55, 500
Pawcatnck river (Rhode Island and Connecticut)	1871	50,000	Actor Control Control		50,000
Tawcatuck river (Knode Island and Connecticut)	1886	50,000	12,000		12,000
	1888		10,000		10,000
	1890		*****************	16, 600	16, 600
Total for Pawcatuck river	1871	50, 000	22, 000	14, 600	88, 600
Philadelphia harbor (Pennsylvania and New Jersey)	1888 1890		505, 000	200,000	505, 000 200, 000
Total for Philadelphia harbor	1888		505, 000	200, 000	705, 000
the transmitted and	144	1	12-017		10.000
Shenandoah river (West Virginia)	1880 1881		15, 000 2, 500		15, 000 2, 500
Total for Shenandoah river	1880		17, 500		17, 500
Stateu Island channel (New York and New Jersey)	1874	75,000			75, 000
	1880		29,000		29, 000-
	1882		40,000		40,000
	1884		10,000		10,000
	1886	***************	15,000	***************************************	15,000 15,000
	1888 1890		15,000	15,000	15, 000
are to any services			420.000		
Total for Staten Island channel	1874	75, 000	109, 000	15, 000	- 199,000
2t. John and St. Mary inland passage (Georgia and Florida)	1828	78,000			78, O-CH
Waccamaw river (North Carolina and South Carolina)	1880		15, 000		15, 🗪
	1881	**************	10,000		10,
	1882	***************************************	4, 400 6, 000		100
	1884 1 886		15, 000		1
	1890		10,000	12, 500	12, 5
Total for Waccamaw river	1880		50, 400	12, 500	62, 50
Warrior and Tombigbee rivers (Alabama and Mississippi)	1872	120, 000			130, 🕬
	1880		51,000		51. 400 26. 000 31. 000 37, 000
	1881		26,000		26, 000
	1882		31,000		31. 000
		1	37, 000		31,000
	1884		21, 222		97 948
	1886		37, 500		37, 500 16, 500
	1884 1886 1888 1890		37, 500 16, 500	125, 000	37. 500 16, 500 125, 000

TABLE 39.—APPROPRIATIONS FOR ATLANTIC COAST AND GULF OF MEXICO-Continued.

GENERAL APPROPRIATIONS.

LOCALITIES.	Date of earliest appropria- tion.	Appropriations up to and including 1879.	Appropriations from 1889 to 1889, inclusive.	Appropriations September 19, 1890.	Total appropriations to date.
Total	1841	\$4, 832, 127	\$258, 575	!	\$ 5, 090, 702
For the preservation and repair of harbor and river improvements, not mentioned in foregoing statements.	1841	85, 000			85, 000
For repairs and contingencies.	1852	110, 000		! ` 	110,000
For transportation, fuel. etc	1852	12, 127			12, 127
For surveys.	1866	60,000	 	 	60, 000
For the repair, extension, and completion of public works on rivers and harbors, not mentioned in foregoing statements.	1868	3, 500, 000		 	3, 500, 000
For examination and surveys for which there is no special appropriation.	1870 1880 1881	1, 065, 000	150, 000 50, 000		1, 065, 000 150, 000 50, 000
Total	1870	1, 065, 000	200. 000		1, 265, 000
For removal of sunken vessels	1880		8, 575	 	8, 575
For the purchase of Shreve's patent	1881		50, 000	ļ	50,000

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TRANSPORTATION ON THE PACIFIC COAST.

(EXCLUSIVE OF ALASKA.)

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TRANSPORTATION ON THE PACIFIC COAST.

(EXCLUSIVE OF ALASKA.)

BY THOMAS J. VIVIAN.

The statistics of transportation which are presented in the accompanying report are for the seaports and inland waterways of the states of Washington, Oregon, and California. From the official description of the Pacific coast furnished by the United States Coast and Geodetic Survey, it may be briefly stated that from the southern boundary of California, in latitude 32° 32′, longitude 117° 08′, to Point Arguello, in latitude 34° 34′, longitude 120° 38′, the coast runs west-northwest 225 miles, off which stretch lie the Santa Barbara islands; that from Point Arguello to Cape Mendocino, in latitude 40° 25′, longitude 124° 22′, it runs northwest 525 miles, embracing the Bay of Monterey and the gulf of the Farallones with the entrance to San Francisco bay; and that from Cape Mendocino to Cape Flattery, in latitude 48° 23′, longitude 124° 44′, it runs north-northwest 480 miles, embracing Humboldt bay, the great reefs of Point St. George and Cape Orford, the entrance to the Columbia river, and the Strait of Juan de Fuca.

COMMERCIAL FACILITIES.

According to the same authority the Pacific coast shore lines are as follows:

	MILES.
Length of coast of California, including the Santa Barbara islands, and not including the	bays
and rivers	1, 280
Oregon	382
Washington, including the islands of Washington sound, Admiralty inlet, and Paget sound.	2, 028
Total shore line	3, 690

The advantages thus given and the facilities afforded for the prosecution of maritime commerce by such a vast coast line with the numerous harbors, inlets, and rivers that penetrate far into the interior, have not yet been fully appreciated or comprehended, although with each succeeding year the true magnitude of their possibilities is becoming understood.

COAST OF CALIFORNIA.

The coast of California lies between 32° 32′ and 42° north latitude. Measured from point to point its length is 850 statute miles. Its trend is from southeast to northwest, the most southerly point being also the most easterly. The most westerly point is not, however, the highest in latitude, Cape Mendocino, 100 miles south of the northern boundary, being farthest to the west. Up to this point from the Mexican boundary the trend of the coast is irregularly to the westward.

The gulf of the Farallones (in the bight of which is the entrance to San Francisco harbor), the Bay of Monterey, and a marked deviation to the east at Point Conception, are the prominent exceptions to the general northwesterly trend of the coast, and are the only instances of breaks of the continuity in large forms. The eastward recession of the coast at Point Conception partially protects the shore to the southward from northwesterly winds, and thereby serves to impart a noticeable softening to the coast climate of southern California. This protection makes landings on the open coast practicable to a much greater extent to the south of Point Conception than is possible to the north of it.

The shore line of California is generally bold and bluff to the sea, and is often mountainous and forbidding as viewed from the ocean. There are, however, a number of low plains or sand beaches interspersed between rocky points, but almost throughout its length it is bounded on the east side by ranges of mountains, which either come directly to the ocean or in other places recede a few miles from the shore line, being conspicuously visible in clear weather many miles at sea. The topography of the coast belt in general makes communication by land difficult, and in long stretches of coast the only outlet for productions or facility for trade is afforded by tne sea.

The streams which discharge into the ocean are for the most part short and steep in descent. At their mouths shallow bars are found. The tide gives them whatever value they possess for purposes of navigation. This value

is not great; the depth of the few whose mouths admit vessels does not exceed 8 to 12 feet at high tide in channels that are frequently changed in position by gales of wind. The Salinas, Eel, and Klamath rivers are the largest examples.

A noticeable characteristic of the coast is the occurrence of esteros or lagoons, in which the tide rises and falls. In some instances they give admittance at high water to vessels drawing 8 to 10 feet. Wilmington harbor has been improved by the federal government so that vessels drawing 16 feet now enter. No improvement has been attempted at any of the other esteros, such as Newport, Morro, Drakes, and Bodega, but they are not of great value to commerce.

As for harbors, there are but two suitable for the largest vessels, San Francisco, admirable in every respect, and San Diego, smaller, but good. They are 500 miles apart. North of San Francisco there is no deep water harbor. Humboldt harbor to the north and Wilmington to the south are the only remaining instances of harbors which admit vessels with drafts of more than 8 to 10 feet. The limit of draft of vessels for these harbors is about 16 feet.

SAN FRANCISCO BAY AND ITS RIVERS.

What is popularly known as San Francisco bay is really a series of bays, as the different parts bear different names. San Francisco bay is 40 miles in length, extending 30 miles south of the city and 10 miles north of it. Adjoining it on the north, with an eastward trend, is San Pablo bay, about 12 miles in length, connected with Suisun bay lying to the eastward by the Strait of Karquinez, which is about 6 miles in length, the total mid-tide area of all these bays being 450 square miles.

The channels of the bay, while not free from rocks, are free from danger, and, indeed, San Francisco harbor, by reason of its unusual depth of entrance, freedom from hidden dangers, conspicuous landmarks, and its internal commodiousness and capacity, is well endowed.

The two rivers which drain the central valley of California, the Sacramento and San Joaquin, discharge together at the eastern end of Suisun bay, and, together with the bays already mentioned, afford continuous navigation to the considerable towns of Sacramento and Stockton, and to a large district of agricultural country lying above these points. The navigable portion of the Sacramento river is about 230 miles in length. The lower stretch, extending from Sacramento to the month, 60 miles in length, is affected by the tide for the greater part of its length, and is navigable for the largest class of river boats. The next division carries 4 feet of water in the lowest stage of the river to Colusa, 106 miles distant from Sacramento. Above Colusa the fall of the river increases rapidly. It is navigable for boats and barges drawing about 3 feet to Mackintosh landing, 68 miles farther up the Feather, which enters the Sacramento 20 miles above the city of the same name, and is navigable to the town of Marysville, 30 miles from its mouth. The San Joaquin river is navigable for large steamboats from its mouth to Stockton slough, a distance of 38 miles. During the winter and spring, navigation is practicable for light drafts to Hills Ferry, 90 miles farther up stream.

The Mokelumne river, Old river, and other tidal channels subsidiary to the San Joaquin afford steam navigation to more or less extent.

A number of fidal channels, locally known as creeks, make up from the bays, sometimes for a considerable distance, and afford navigation for light-draft boats and cheap communication with San Francisco. The largest of these are Napa, Petaluma, and Suisun creeks, the respective heads of navigation being thriving towns bearing the same names, while the whole 32 tidal channels contribute no less than 194 miles to the navigable waters of the bay.

ROADSTEADS AND LANDINGS.

The lack of convenient harbors and the difficult topography of the coast would seem to be insuperable obstacles, forbidding commerce, and consigning the coast lands to isolation. Yet a large aggregate of commerce is carried on by small vessels, which find shelter and opportunity in roadsteads, large and small, convenient otherwise, which are distributed over almost the whole length of the coast.

The coast line, although little broken in large forms or provided with inlets admitting vessels, is irregular in small way, being frequently varied by jutting rocky points, which afford a lee to the southward and shelter free the prevailing winds from the northwest which blow parallel to the coast line. The bights thus formed entirely uncovered on one side, namely, to the south. Monterey roadstead is the only exception, it being open the north and covered from the south. All others are sheltered on the north side and open in the south, southerly weather vessels lying in these roadsteads are in danger of being driven ashore by wind or by the inserting of a heavy sea.

The period of northerly or northwesterly winds covers most of the year. During winter months souther winds occur at intervals, but not continuously. They are less frequent and less violent south of Point Conception than on the northern half of the coast, where they are liable to occur in severe storms, accompanied by heavy sent from the southwest. They are not, however, of long duration.

The coast is a lee shore in southwesterly gales, and sailing vessels finding themselves near the coast under these conditions are fortunate if they escape destruction. The prevailing northwesterly winds, however, do not expose vessels to the dangers of a lee shore, as they occur but as moderate gales. There is almost always a heavy surf, even in calm weather, which makes it dangerous to land in boats at unsheltered points.

The principal roadsteads in order of latitude south to north are San Pedro, San Luis Obispo, or Port Harford, Monterey, and Santa Cruz, situated south of San Francisco, and Drakes bay, Trinidad, and Crescent city, to the north of San Francisco.

In addition there are a great number of small roadsteads, including bays with shallow bars, river entrances, places with shelter for a very few vessels, and landings upon the open coast, where small vessels, steam or sail, receive or discharge cargo. No square rigged vessels or large steamers visit these points.

Most of these landings are contracted. They are usually provided with substantial moorings. Where trade warrants and where the position is not too exposed a wharf is built. In other cases, where the shore is high, cargo is put aboard by a chute or by means of a wire cable made fast to the mast of a vessel lying at anchor.

The distribution of these landings on different parts of the coast is quite unequal. Between the parallels 38° and 40° they are thickly grouped, there being nearly 40 in this interval. This is a region of some agricultural production, but the main trade is in the various forms of redwood lumber, railroad ties, and posts.

The mountainous character of Cape Mendocino and the absence of productions serve to reduce the number of landings between parallels 40° and 42° to six, in which, however, are included several points of importance.

Between San Pedro and San Diego there are but few landings, and they are sparsely distributed between Point Conception and Monterey.

Dense fogs prevail along the coast during the late summer and early autumn. They are a source of real danger, which is being reduced as the number of steam fog signals on shore is increased. These, with automatic whistling buoys, are now placed off the entrances of the most important ports.

COAST OF OREGON.

The coast line of Oregon is very similar to that of California, the cliffs for long stretches being almost vertical and covered with a dense growth of timber and underbrush, varied with sand dunes, a few bights, and an occasional estuary and lagoon. The harbors formed by the mouths of rivers are more numerous than any other class of landings for commercial purposes, the principal being the mouth of the Rogue river, which is quite extensive; the mouth of the Coquille, between which and San Francisco there plies a large fleet of lumber schooners; the mouth of the Umpqua, forming one of the best ports of the northwestern coast; the mouth of the Siuslaw, often called Siuslaw bay; Siletz river bay, and Nehalem bay, which is really the tidal mouth of the river of the same name.

Coos bay is quite an extensive lagoon, sheltered by Cape Arago, and contains the two important towns of Empire city and Marshfield, from which places steamship lines ply regularly to San Francisco and Portland. Yakima bay and Tillamook harbor are good roadsteads, ocean steamers of from 12 to 14 feet draft running regularly between these places and San Francisco, 450 miles to the south. Alsea bay and Chetco bay afford good landings, while Astoria is situated on an extensive estuary, into which Youngs and Klaskuine rivers empty their waters. Just above the entrance to the Rogue river, 350 miles north of San Francisco and lying under the shelter of Cape Blanco, the most westerly point of the Pacific coast states, is Port Orford, selected by United States engineers as the harbor of refuge for Oregon.

The most remarkable waterways of Oregon are the Columbia and Willamette rivers. The Columbia belongs both to Washington and Oregon. The Willamette flows northward about midway between the coast range and the Cascade mountains and empties into the Columbia river at a point about 100 miles from the ocean, receiving in its course the five important westward flowing streams: the Clockalas, Moalla, Pudding, Santiam, and McKenzie, while flowing east into it are the Tutatulin, Chehalem, Yam Hill, La Crole, Luckiamute, Marys, Long Tom, and Callaposia, all of these being streams of importance and many of them navigable. The Willamette is navigable for steamers and river craft 125 miles from its mouth.

The city of Portland is situated on the Willamette, about 12 miles from its confluence with the Columbia and 110 miles by river from the ocean. It is at the head of ocean navigation for nearly the whole area drained by the Columbia river, and is remarkable as being the first place north of San Francisco, from which it is distant 709 miles, which will admit seagoing vessels of all classes. Its trade not only includes the comparatively local traffic of northern California, western Montana, and British Columbia, but also a large and increasing foreign commerce in wheat to England and the continent, in flour to Japan, and in lumber to England, China, and South America.

THE COLUMBIA RIVER.

This great river of the northwest forms the boundary line between the states of Oregon and Washington for 320 miles. Its principal tributary, the Snake river, flows through the latter state as a navigable river for 168

miles. The Columbia is navigable for steamboats of considerable draft for a distance of more than 1,000 miles from its mouth. For the first 100 miles it is five miles in width and has a depth sufficient to carry ocean vessels.

COAST OF WASHINGTON.

The coast of Washington, from the mouth of the Columbia to Cape Flattery, is even less broken than that of Oregon, the only indentations of any commercial consequence being Shoalwater bay and Grays harbor. Shoalwater bay is a long, narrow arm of the sea, lying parallel and close to the coast, and having many of the characteristics of the more southerly lagoons. The Willapa, Nasel, and North empty into the bay and are all navigable. Fifteen miles above the entrance of Shoalwater bay lies Grays harbor, the entrance to which is marked by a bar unusually safe and easy of passage. Grays harbor covers an area of 70 square miles, most of which, however, is bare or shoal at low tide. The Chehalis, Hoquiam, Johns river, and Humptulips all empty into the harbor just inside the entrance and form an excellent anchorage.

PUGET SOUND.

This landlocked body of salt water is the distinguishing feature of the state of Washington as well as of the extreme northwestern section of the United States. The distance from the channel line in the Strait of Fuca to Olympia, the head of navigation, is 117 miles. Narrow inlets from 5 to 35 miles in length, all navigable for steamers and many for deep water ships, extend from the main body in all directions, the inside shore line on the sound following these ramifications being upward of 19,000 miles. The average depth of the sound is 70 fathoms, and it is remarkable that it has for its whole extent no rocks, quicksands, or shoals. A number of rivers flow into the sound, nearly all of which take their rise in the glaciers of Mount Tacoma and other peaks of the Cascade range, the principal being the Nooksachk, Skagit, Samish, Stillaguamish, Snohomish, Snoqualmie, Nesqually, Skokomish, Dwamish, and Puyallup.

INSPECTION RETURNS.

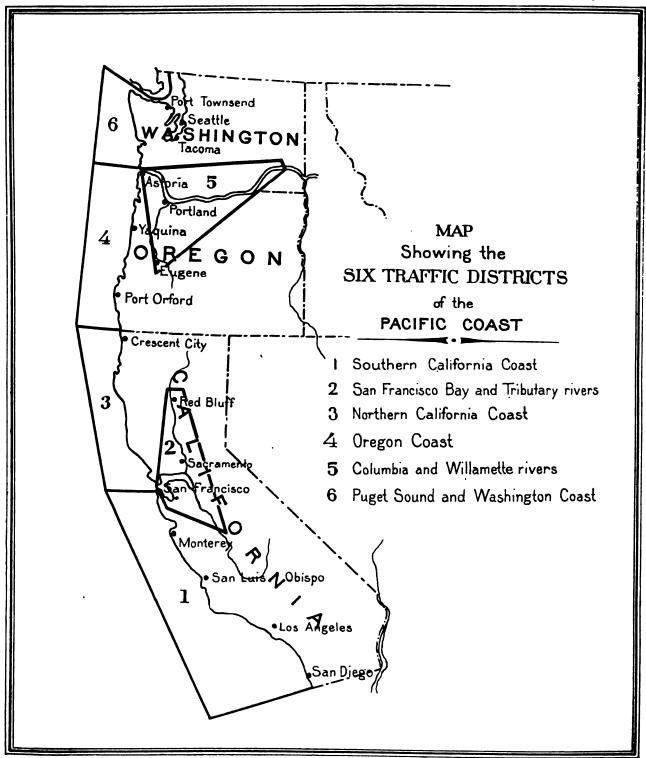
A correct idea of the growth of active tonnage on the Pacific coast from the earliest date of official record up to the year 1880 may be gathered from the following table compiled from the records of the United States steamboat inspection service. The entries for the later years will be given in that portion of the text wherein the comparative statistics for the period bounded by the census years 1880–1890 are considered.

TABLE A.—STATEMENT SHOWING THE NUMBER AND TONNAGE OF ACTIVE STEAMERS INSPECTED ON THE PACIFIC COAST FROM 1855 TO 1880, INCLUSIVE, GIVEN FOR THE INSPECTION DISTRICTS OF SAN FRANCISCO, CALIFORNIA, PORTLAND, OREGON, AND PUGET SOUND, WASHINGTON.

	TOTAL PAG	TAL PACIFIC COAST. SAN FRANCISCO.		RANCISCO.	PORTLAND.		PUGET SOUND.	
YRARS.	Number.	Топраде.	Number.	Tonnage.	Number.	Tonnage.	Number.	Tonnage
855856 (a)	33	19, 714	33	19, 714		•••••		
857	35	18, 239	35	18, 239				
858	35	20, 057	: 35	20, 057	II	• • • • • • • • • • • • • • • • • • • •	1	• • • • • • • • • • • • • • • • • • •
850	31	18, 170	31	18, 170	i	• • • • • • • • • • • • • • • • • • •		.
860	43	23, 493	43	23, 493	i.		1	
861 (a)					f	. 	ļl	
862	75	30, 477	50	27, 654	25	2, 823		
963	68	25, 868	44	22, 509	24	3, 359		
864	70	32, 598	43	28, 853	27	3, 745		
865	88	38, 124	63	33, 686	25	4, 438		.
866	99	46, 812	73	42 , 738	26	4, 074		
867	119	57, 198	85	49, 162	34	8. 036		
368	107	69, 645	87	64, 254	20	5. 391		
369	166	75, 934	113	65, 660	53	10, 274		
370	154	63, 156	101	53, 625	53	9, 531		 .
871	180	83, 279	116	70, 539	50	10, 388	20	2, 3
872	173	83, 925	101	71, 996	i 50	9, 224	22	2, 7
373	204	83, 271	124	67, 804	55	12, 358	25	3, 1
*74	217	95, 643	136	79, 830	57	12, 696	24	3, 1
875	222	98, 368	136	79, 392	64	15, 690	22	3, 2
76	249	94. 957	152	74, 433	61	16, 125	36	4, 3:
377	271	102, 912	163	78, 3 4 8	71	19, 548	37	5, 0
378	288	112, 327	165	83, 664	81	24, 041	42	4, 6:
379	292	109, 790	. 161	78, 401	92	26, 789	39	4, 0
380	288	107, 729	161	78, 599	91	24, 650	36	4, 41

a In 1856 and 1861 no inspections were made.

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LOCALITIES OF REGISTRATION, EQUIPMENT, AND TRAFFIC.

In order to facilitate the presentation of statistics two systems of assignment have been devised and followed. The first system is that of segregating the various reports according to the customs districts, of which there are nine in the states of California, Oregon, and Washington. These, with their distinctive names, ports of entry, and ports of delivery, together with their boundary lines, are as follows:

NAMES, PORTS, AND BOUNDARY LINES OF THE CUSTOMS DISTRICTS OF CALIFORNIA, OREGON, AND WASHINGTON.

CALIFORNIA.

EUS.	Name of district.	Port of entry.	Port of delivery.	Boundary line.
 	San Diego	San Diego		From Mexico to Point San Mateo.
	Wilmington	Wilmington	Santa Barbara, San Buenaventura, and Hueneme.	From Point San Mateo to Point Sal, California.
	San Francisco	San Francisco	Vallejo and San Luis Obispo	From Point Sal to south line of Humboldt county, California.
	Humboldt	Eureka	Crescent City	From south line of Humboldt county, California, to Oregon.
			OREGON.	
	Southern Oregon	Coos bay	Ellensburg. Port Orford, and Gardiner.	From south line of Oregon to the south line of Lane county, Oregon.
	Yaquina	Yaquina	Newport	From south line of Lane county, Oregon, to Cape Lookout, Oregon.
	Oregon	Astoria		From Cape Lookout to Tillamook head, Oregon.
	Willamette	Portland		From Portland, Oregon, to mouth of Willamette river.
			WASHINGTON.	
	Puget Sound	Part Townsend		From Tillamook head to north boundary of Washington.

To these districts all the statistics of number, valuation, tonnage, construction, rig, occupation, earnings, expenses, and operations have been assigned. The statistics assigned to the customs districts stand as the reports of the vessels registered in the ports embraced in those districts, but do not stand as the reports of the trade of ports, nor do they indicate well defined movements of commerce. The plan was therefore adopted of selecting "traffic districts" between or within which a more or less distinctive trade is carried on; these districts being entitled as follows:

TRAFFIC DISTRICTS.

- 1 Southern California coast.
- 2 San Francisco bay and tributary rivers.
- 3 Northern California coast.
- 4 Oregon coast.
- 5 Columbia and Willamette rivers.
- 6 Puget sound and Washington coast.
- 7 Foreign ports.
- 8 Atlantic ports.
- 9 Alaska coast and Bering sea.

Point Sur, Monterey county.

Of these districts, it will be observed, six are located on the coast of the states of California, Oregon, and Washington, their limitations being set down on the accompanying map, while the ports and trading points of all the districts at which Pacific coast vessels made a report of having called are given in the following lists:

District No. 1, entitled "Southern California coast", includes the following ports and landings: Moss landing, Monterey county.

Amesport, San Mateo county. Anaheim, Orange county. Andersons landing, San Diego county. Aptos, Santa Cruz county. Avalon, Los Angeles county. Ballona harbor, Los Angeles county. Cape San Martin, Monterey county. Carpenteria, Santa Barbara county. Catalina island, San Diego county. Cayucos, San Luis Obispo county. Coronado, San Diego county. Davenports landing, Santa Cruz county. Farallones, San Francisco county. Gaviota, Santa Barbara county. Goleta, Santa Barbara county. Gordons, Monterey county. Half Moon bay, San Mateo county. Hueneme, Ventura county. Lompoc landing, Santa Barbara county. Los Berros, San Luis Obispo county. Monterey, Monterey county. Morro, San Luis Obispo county.

Newport, Orange county. Pacific Grove, Monterey county. Pajaro, Monterey county. Palos Verdes, Los Angeles county. Pescadero, San Mateo county. Piedras Blancas, San Luis Obispo county. Pigeon point, San Mateo county. Pillar point, San Mateo county. Point Arguello, Santa Barbara county. Point Buchon, San Luis Obispo county. Point Conception, Santa Barbara county. Point Cypress, Monterey county. Point Gordo, Monterey county. Point Lobos, San Francisco county. Point Loma, San Diego county. Point Monterey, San Mateo county. Point Nuevo Ano, San Mateo county. Point Pinos, Monterey county. Point Purissima, Santa Barbara county. Point Sal, Santa Barbara county.

Point San Pedro, Los Angeles county.

Port Harford, San Luis Obispo county. Redondo, Los Angeles county. Salinas landing, Monterey county. San Buenaventura, Ventura county. San Clemente island, San Diego county. San Diego, San Diego county. San Nicolas island, San Diego county. San Pedro, Los Angeles county. San Simeon, San Luis Obispo county. Santa Barbara islands, Santa Barbara county. Santa Barbara, Santa Barbara county. Santa Cruz island, Santa Barbara county. Santa Cruz, Santa Cruz county. Santa Monica, Los Angeles county. Santa Rosa island, Santa Barbara county. Soquel, Santa Cruz county. Watsonville landing, Monterey county.

Williams landing, Santa Cruz county.

Wilmington, Los Angeles county.

District No. 2, entitled "San Francisco bay and tributary rivers", includes the following ports and landings:

Alameda, San Francisco bay. Alvarado, San Francisco bay. Alviso, San Francisco bay. Andersons landing, San Francisco bay. Angel island, San Francisco bay. Antioch, San Joaquin river. Barrons landing, Suisun bay. Benicia, San Francisco bay. Bensons landing, San Francisco bay. Berkeley, San Francisco bay. Birds landing, Sacramento river. Black Diamond, Sacramento river. Black point, San Francisco bay. Blind bay, San Francisco bay. Bob Mains landing, San Francisco bay. Bolton island, San Joaquin river. Boulder island, San Joaquin river. Bracks landing, Sacramento river. Buhlers landing, Suisun bay. Burdsells landing, Sacramento river. Butte city, Sacramento river. California city, San Francisco bay. Cantereek, San Francisco bay. Clarksburg, Sacramento river. Collinsville, Sacramento river. Colusa, Sacramento river. Courtland, Sacramento river. Crows landing, Sacramento river. Decota, Sacramento river. Dumbarton, Sacramento river. Duttons, San Francisco bay. Fairfield, Sacramento river. Fair Oaks, Sacramento river. Firebaugh, Sau Joaquin river. Franklin, Sacramento river. Freeport, Sacramento river. Galinas creek, San Francisco bay. Goat island, San Francisco bay. Grafton, Sacramento river. Grand island, Sacramento river. Gravel beds, San Francisco bay. Grayson, Sacramento river. Haystack landing, Sacramento river. Hunters point, San Francisco bay. Iron Horse slough, Sacramento river.

Isleton, Sacramento river. Jarvis landing, San Francisco bay. Jersey landing, Sacramento river. Jewels landing, San Francisco bay. Knights landing, Sacramento river. Lakeville, Sacramento river. Linden, Sacramento river. Long bridge, San Francisco bay. Lux ranch, San Francisco bay. McIntosh landing, Sacramento river. Maine prairies, Sacramento river, Mare island, San Francisco bay. Martinez, San Francisco bay. Marysville, Sacramento river. Maurys landing, San Francisco bay. Mayhews landing, San Francisco bay. Meiggs wharf, San Francisco bay. Melrose, San Francisco bay. Milpitas, San Francisco bay. Mokelumne river, San Joaquin river. Mott landing, San Francisco bay. Mountain View, San Francisco bay. Mount Eden, San Francisco bay. Mulfords landing, Napa creek. Napa, Napa creek. New Hope, Sacramento river. New town, Sacramento river. Novato, San Francisco bay. Oakland, San Francisco bay. Oregon dock, San Francisco bay. Oyster beds, San Francisco bay. Pacheco, San Francisco bay. Pattersons landing, Sacramento river. Petaluma creek, San Francisco bay. Petaluma, Petaluma creek. Peter point, San Francisco bay. Pinole, San Francisco bay. Pipers slough, San Francisco bay. Pittsburg landing, San Joaquin river. Port Costa, San Francisco bay. Potato slough, San Joaquin river. Powning, San Francisco bay. Presidio, San Francisco bay. Ravenswood, San Joaquin river. Redwood city, San Francisco bay.

Richland, Sacramento river. Rio Vista, Sacramento river. Roberts island, San Joaquin river. Rolling mills, San Francisco bay, Rose landing, San Joaquin river. Rose slough, San Joaquin river. Sacramento, Sacramento river. Salt slough, San Joaquin river. Salt works, San Francisco bay. San Bruno, San Francisco bay. San Francisco, San Francisco bay. San Francisquito, San Joaquin river. San Joaquin, San Joaquin river. San Mateo, San Francisco bay. San Pablo, San Francisco bay. San Quentin, San Francisco bay. San Rafael, San Francisco bay. Sansalito, San Francisco bay. Seal bluff, San Francisco bay. Selbys, San Francisco bay. Sierra point, San Francisco bay. Snodgrass slough, San Joaquin river. Sobrante, San Francisco bay. Sonoma landing, San Francisco bay. Stockton, San Joaquin river. Stones landing, San Francisco bay. Stratton island, San Joaquin river. Suisun, Suisun bay. Sutterville, San Joaquin river. Tabors landing, San Francisco bay. Thomas landing, San Francisco bay. Tiburon, San Francisco bay. Tolands landing, Sacramento river. Turks landing, Sacramento river, Union city creek, San Joaquin river. Union house, Sacramento river. Union iron works, San Francisco bay. Union island, San Francisco bay. Vallejo, San Francisco bay. Walnut Grove, Sacramento river. Warm springs, San Francisco bay. West Berkeley, San Francisco bay. Whites landing, San Joaquin river. Woodbridge, San Joaquin river. Yuba city, Sacramento river.

District No. 3, entitled "Northern California coast", includes the following ports and landings:

Albion, Mendocino county. Arcata, Humboldt county. Bodega, Sonoma county. Bolinas, Marin county. Bowers landing, Mendocino county. Biblers point, Sonoma county. Bridgeport, Humboldt county. Buckport, Humboldt county. Casper, Mendocino county. Cleone, Mendocino county. Collins landing, Mendocino county. Crescent, Del Norte county. Cuffey Cove, Mendocino county. Duxbury point, Sonoma county. Eel river, Humboldt county. Eureka, Humboldt county. Fields landing, Humboldt county. Fish rock, Mendocino county. Fisks mill, Sonoma county.

Fort Bragg, Mendocino county. Fort Ross, Sonoma county. Greenwood creek, Mendocino county. Gualala, Mendocino county. Hookton, Humboldt county. Humboldt, Humboldt county. Inglenook, Mendocino county. Klamath river, Humboldt county. Little river, Mendocino county. Mad river, Humboldt county. Mendocino city, Mendocino county. Myrtle creek, Humboldt county. Navarro, Mendocino county. North Port, Mendocino county. Noyo, Mendocino county. Point Arena, Mendocino county. Point Gorda, Humboldt county. Point Reyes, Marin county. Point Tomales, Marin county.

Port Kenyon, Humboldt county. Rockport, Mendocino county. Rough and Ready, Mendocino county. Russian landing, Sonoma county. Salt point, Sonoma county. Shelter Cove, Mendocino county. Signal point, Mendocino county. Smiths river, Del Norte county. South bay, Humboldt county. Stewarts point, Sonoma county. Stillwater Cove, Sonoma county. Table bluff, Humboldt county. Timber Cove, Sonoma county. Tomales, Marin county. Trinidad, Humboldt county. Ussal creek, Mendocino county. Westport, Mendocino county. Whitesboro, Mendocino county.

District No. 4, entitled "Oregon coast," includes the following ports and landings:

Alsea bay, Benton county. Bandon, Coos county. Bay city, Tillamook county. Cape Blanco, Curry county. Cape Foulweather, Tillamook county. Cape Gregory, Coos county. Cape Lookout, Tillamook county. Cape Mears, Tillamook county. Cape Orford, Curry county. Cape Perpetua, Benton county. Chetco, Curry county. Collins, Benton county. Coos bay, Coos county. Coos city, Coos county. Coquille river, Coos county. Elk city, Benton county. Ellensburg, Curry county.

Empire city, Coos county. Florence, Lane county. Gardiner, Douglas county. Garibaldi, Tillamook county. Hobsonville, Tillamook county. Marshfield, Coos county. Mishawaka, Clatsop county. Myrtle, Coos county. Nehalem bay, Clatsop county. Nestocton, Tillamook county. Netarts, Tillamook county. Newport, Benton county. Norfolk, Douglas county. Oretown, Tillamook county. Oyster bay, Benton county. Oysterville, Benton county. Parkersburg, Coos county. .

Port Orford, Curry county. Randolph, Coos county. Rock creek, Tillamook county. Rogue river, Curry county. Scottsburg, Douglas county. Seaton, Lane county. Shoalwater bay, Coos county. Siletz bay, Tillamook county. Siuslaw, Lane county. Smiths river, Douglas county. Sulphur springs, Douglas county. Tillamook, Tillamook county. Toledo, Benton county. Umpqua river, Douglas county. Utter city, Coos county. Yakima, Benton county. Yaquina, Benton county.

District No. 5, entitled "The Columbia and Willamette rivers", includes the following ports and landings:

Albany, Willamette river. Albina, Willamette river. Arlington, Columbia river. Astoria, Columbia river. Beaver, Columbia river. Blalock, Columbia river. Blind slough, Columbia river. Booneville, Willamette river. Butteville, Willamette river. Canby, Willamette river. Cape Disappointment, Columbia river. Cape Horn, Columbia river. Carroll, Columbia river. Cascades, Columbia river. Castle Rock, Columbia river. Cathlamet, Columbia river. Chinook, Columbia river. Clackamas, Willamette river. Clark river, Upper Columbia river. Clatskamie river, Columbia river. Clatsop, Columbia river. Clifton, Columbia river. Collis, Columbia river. Columbia, Columbia river. Cool creek, Columbia River. Corvallis, Willamette river. Coweewan, Columbia river. Cowlitz, Columbia river. Coyote, Columbia river. Deep creek, Upper Columbia river. Deer island, Columbia river. Dodsons, Columbia river. Eagle cliff, Columbia river. East Portland, Willamette river. Enterprise, Columbia river. Engene city, Willamette river. Fairfield, Willamette river.

Fern Hill, Columbia river. Fort Canby, Columbia river. Fort Stevens, Columbia river. Freeport, Columbia river. Gnat creek, Columbia river. Grays river, Columbia river. Harringtons point, Columbia river. Harrisburg, Willamette river. Hess slough, Columbia river. Hoods river, Columbia river. Hunters point, Columbia river. Ilwaco, Columbia river. Independence, Willamette river. John Days river, Columbia river. Juniper, Columbia river. Kalama, Columbia river. Kelso, Columbia river. Klakamas, Willamette river. Klickitat, Columbia river. Knappa, Columbia river. Knappton, Columbia river. La Center, Columbia river. Lake river, Columbia river. Lewis and Clarke river, Columbia river. Lincoln, Willamette river. Marshland, Columbia river. Martins slough, Columbia river. Millers, Willamette river. Milton, Columbia river. Milwaukee, Willamette river. Mohawk, Willamette river. Monticello, Columbia river. Mosier, Columbia river. Mount Coffin, Columbia river. Oak Point, Columbia river. Olney, Columbia river. Oregon city, Willamette river.

Oswego, Willamette river. Pekin, Columbia river. Peoria, Willamette river. Pillar rock, Columbia river. Point Adams, Columbia river. Portland, Willamette river. Quinn, Columbia river. Ranier, Columbia river. Rays landing, Willamette river. Rowena, Columbia river. St. Helen, Columbia river. St. Johns, Columbia river. Salem, Willamette river. Sand island, Willamette river. Scappose, Columbia river. Sellwood, Willamette river. Skamokawa, Columbia river. Skipanon, Columbia River. Springfield, Willamette river. Stokes, Columbia river. The Dalles, Columbia river. Toledo, Columbia river. Tongue point, Columbia river. Tualatin, Willamette river. Umatilla, Columbia river. Upper Columbia, Columbia river. Vancouver, Columbia river. Venton, Columbia river. Wallawalla, Columbia river. Wallula, Columbia river. Washougal, Columbia river. Waterford, Columbia river. Westport, Columbia river. Weyeth, Columbia river. Wheatland, Willamette river. Youngs river, Columbia riverDistrict No. 6, entitled "Puget sound and Washington coast", includes the following ports and landings:

Aberdeen, coast. Anacortes, Puget sound. Arcadia, Puget sound. Avondale, Puget sound. Ballard, Puget sound. Bay city, coast. Bellingham bay, Paget sound. Birch bay, Puget sound. Blaine, Puget sound. Bruceport, coast. Cape Flattery, coast. Cape Johnson, coast. Cascade bay, coast. Caseys inlet, Puget sound. Cedarville, coast. Centerville, Puget sound. Chehalis bay, coast. Chicago, Puget sound. Chico, Puget sound. Chimacum, Puget sound. Cluckamut, Puget sound. Coburg, Puget sound. Cosmopolis, coast. Coupeville, Puget sound. Coveland, Puget sound. Crescent bay, Puget sound. Cypress, Puget sound. Damon, coast. Deception bay, Puget sound. Des Moines, Puget sound. Dewatto, Puget sound. Doe bay, Puget sound. Dogfish bay, Puget sound. Dunamish, Puget sound. Dwamish, Puget sound. East sound, Puget sound. Ebeys landing, Puget sound. Edison, Puget sound. Edmunds, Puget sound. Elma, coast. Fairhaven, Puget sound. Falls city, Puget sound. Fidalgo, Puget sound. Florence, Puget sound. Freeport, Puget sound. Friday harbor, Puget sound. Gig harbor, Puget sound.

Gull harbor, Puget sound. Hadlock, Puget sound. Hats slough, Puget sound. Henderson bay, Puget sound. Hoko, Puget sound. Hoquiam, coast. Humptulips, Puget sound. Irondale, Puget sound. Johns river, coast. Kamilche, Puget sound. Kanaka bay, coast. Kirkland, Puget sound. Laconner, Puget sound. Lake bay, Puget sound. Lakeview, Puget sound. Lopes island, Puget sound. Lowell, Puget sound. Lumi, Puget sound. Lyman, Puget sound. Lynden, Puget sound. Markham, coast. Marysville, Puget sound. McKay, Puget sound. Melbourne, coast. Minter, Puget sound. Montesano, coast. Mount Vernon, Puget sound. Mukilteo, Puget sound. Nasel, coast. Neah bay, Puget sound. Nesqually, Puget sound. New Dungeness, Puget sound. New London, Puget sound. Nibbeville, Puget sound. Nooksachk, Puget sound. North cove, coast. Oak harbor, Puget sound. Oakland, Puget sound. Olympia, Puget sound. Orcas island, Puget sound. Oysterville, coast. Petersons point, coast. Port Angeles, Puget sound. Port Blakeley, Puget sound. Port Discovery, Puget sound. Port Gamble, Puget sound. Port Hadlock, Puget sound. Port Ludlow, Puget sound.

Port Madison, Puget sound. Port Orchard, Puget sound. Port Townsend, Puget sound. Poulsbo, Puget sound. Purdy, Puget sound. Puyallup, Puget sound. Pysht, Puget sound. Quartermaster's harbor, Puget sound. Quilcene, Puget sound. Quillayute, coast. Quinault, coast. Renton, Puget sound. Riparia, Snake river. Riverside, coast. Roche harbor, Puget sound. St. Helens, coast. Salmon bay, Puget sound. Samish, Puget sound. San Juan, Puget sound. Seabeck, Puget sound. Seattle, Puget sound. Seguin, Puget sound. Sehome, Puget sound. Semiahmoo, Puget sound. Shelton, Puget sound. Sidney, Puget sound. Skagit, Puget sound. Skokomish, Puget sound. Snohomish, Puget sound. South Bend, coast. Springbrook, Puget sound. Stanwood, Puget sound. Steilacoom, Puget sound. Stillaguamish, Puget sound. Sunshine, coast. Tacoma, Puget sound. Tolt, Puget sound. Tulalip, Puget sound. Tumwater, Puget sound. Union city, Puget sound. Utsaladdy, Puget sound. Vashon, Puget sound. Vaughn, Puget sound. Waldron, Puget sound. Whatcom, Puget sound. White river, Puget sound. Willapa, coast. Willopah, coast.

Traffic district No. 7, entitled "Foreign", includes the ports of call and trading points embraced in the following branches: Japanese and Chinese trade; East India trade; Mexican trade: Central and South American trade; South Sea trade; Canadian trade, and European trade:

JAPANESE AND CHINESE TRADE.

Amoy, China. Foochow, China. Hakodate, Japan. Hongkong, China.

Grays harbor, coast.

Guemes, Puget sound.

Nagasaki, Japan. Nicholasofski, Siberia. Petropaulofski, Siberia. Shanghai, China. Suatow, China. Vladivostock, Siberia. Yokohama, Japan.

EAST INDIA TRADE. .

Bangkok, Siam. Batavia, Java. Bombay, Hindostan. Calcutta, Hindostan. Madagascar island. Manilla, Philippine islands. Padang, Sumatra. Pakalongon, Borneo. Penange, Malaya. Saigon, Cochin China. Samarari, Philippine islands. Singapore, Malaya. Sourabaya, Java.

MEXICAN TRADE.

Acapulco, Guerrero.

Cape San Lucas, Lower California.

Ceros island, Lower California.

Corenado islands, Lower California.

Ensenada, Lower California.

Guaymas, Sonora.

La Paz, Lower California.

Magdalena bay, Lower California.

Manzanillo, Colima.

Mazatlan, Sinaloa.

Port Angel, Lower California.

Raza island, Lower California.

San Benito, Sinaloa.
San Blas, Jalisco.
San Quentin, Lower California.
Santa Margerita island, Lower California.
Santa Rosalie island, Lower California.
Tonala, Chiapas.

CENTRAL AND SOUTH AMERICAN TRADE.

Acajutla, Salvador.
Amapalla, Honduras.
Arico, Chile.
Autafogasta, Chile.
Balenita, Equador.
Buena Ventura, United States of Colombia.
Caldera, Chile.
Callao, Peru.
Cape Corientes, Chile.
Carra bay, Peru.
Champerico, Guatemala.
Cobija, Chile.
Colba, Guatemala.

Coquimbo, Chile.
Corinto, Nicaragua.
Guayaquil, Equador.
Huasco, Chile.
Iquique, Chile.
La Libertad, Salvador.
La Union, Salvador.
Manta, Equador.
Molendo, Peru.
Nicaragua, Guatemala.
Panama, United States of Colombia.
Pascamayo, Peru.

Payta, Peru.
Peten, Peru.
Pimental, Peru.
Pisaqua, Chile.
Pisco, Peru.
Punta Arenas, Costa Rica.
Realjo, Guatemala.
Salavari, Peru.
San José, Guatemala.
San Juan Del Sur, Nicaragua.
Tumaco, United States of Colombia.
Valparaiso, Chile.

SOUTH SEA TRADE.

Apia, Samoan islands.
Caroline islands.
Fanning islands.
Flint islands.
Friendly islands.
Gilbert islands.
Hilo, Hawaiian islands.

Homapo, Hawaiian islands.
Honolulu, Hawaiian islands.
Howland islands.
Kahului, Hawaiian islands.
Mahukona, Hawaiian islands.
Marshall islands.
Melbourne, New South Wales.

Newcastle, New South Wales.
Papeete, Society islands.
Solomon islands.
Sprecklesville, Hawaiian islands.
Sydney, New South Wales.
Tahiti, Society islands.
Tutuila, Samoan islands.

CANADIAN TRADE.

Barkley sound, British Columbia.
Bellingham bay, British Columbia.
Chemainus, Vancouver island, British Columbia.
Comox. Vancouver island, British Columbia.
Departure bay. Vancouver Island, British Columbia.

Dunsmuir, Vancouver island, British Columbia.

Moodyville, British Columbia.

Nanimo, Vancouver island, British Columbia.

New Westminster, British Columbia.

Nootka sound, British Columbia.

Port Moody, British Columbia.
Texada island, Straits of Georgia, British
Columbia.
Vancouver, British Columbia.
Victoria, Vancouver island, British Columbia.

EUROPEAN TRADE.

The large European ports, the principal trading having been with Liverpool, Plymouth, London, Hull, Bordeaux, and Hamburg.

District No. 8, entitled "Atlantic ports", includes all seaports on the United States Atlantic coast.

District No. 9, entitled "Alaska coast and Bering sea", includes the following ports and trading points:

Bartlett bay.
Bristol bay.
Burroughs bay.
Chignik.
Chilkat.
Cook inlet.

Douglas island. Etches bay. Fin point. Fish bay. Fort Tongass. Freshwater bay. Howkan.
Juneau.
Karluk.
Killisnoo.
Klawak
Kodiak.

Labaska. Labouchere bay. Mitlakotla. Morgovia. Nichols bay. Nushagak. Point Hoonah.
Port Clarence.
Prince Williams
sound.
Pyramid harbor.
Sitka.

Sutteshau. Unalaska. Uyak. Wrangell island. Yess bay. Equipment, occupation, and construction:

PLAN OF THE TABLES.

For the presentation of the statistical results of the investigation by the Eleventh Census into the industry of transportation by water on the Pacific coast, 40 tables have been prepared, their respective numbers and titles being as follows:

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Table 1. Equipment of all craft.
      Table 2. Occupation and valuation by classes.
      Table 3. Ownership by classes.
      Table 4. Ownership by localities.
      Table 5. Construction by classes.
      Table 6. Construction by localities.
Traffic operations:
      Table 7. Traffic in general.
      Table 8. Freight traffic by commodities.
      Table 9. Interdistrict movement (freight).
      Table 10. Interdistrict movement (mileage).
Earnings and expenses:
      Table 11. Financial account in general.
      Table 12. Itemized expense account.
      Table 13. Employés and wages in detail.
      Table 14. Employés and wages by coast totals.
      Table 15. Fuel account.
General operations by classes:
      Table 16. Passenger and freight vessels.
      Table 17. Ferryboats.
      Table 18. Fishing vessels.
      Table 19. Harbor tugs.
      Table 20. Pilot boats.
      Table 21. Yachts and pleasure boats.
      Table 22. No traffic report.
      Table 23. Summary.
Comparative statistics:
      Table 24. Steamers and unrigged craft in 1880 and 1889.
      Table 25. Steamers by classes in 1880 and 1889.
      Table 26. Gross earnings of steamers in 1880 and 1889.
      Table 27. Steamers' crews and wages in 1880 and 1889.
      Table 28. Steamer traffic in 1880 and 1889.
      Table 29. Fleets for the 10 years, 1880-1889.
      Table 30. Aggregates and averages for the 10 years, 1880-1889 (all vessels).
      Table 31. Aggregates and averages for the 10 years, 1880-1889 (steamers).
      Table 32. Aggregates and averages for the 10 years, 1880-1889 (sailing vessels).
      Table 33. Aggregates and averages for the 10 years, 1880-1889 (unrigged craft).
      Table 34. Tonnage fluctuations for the 10 years, 1880-1889 (all craft).
      Table 35. Tonnage fluctuations for the 10 years, 1880-1889 (steamers).
      Table 36. Tonnage fluctuations for the 10 years, 1880-1889 (sailing vessels).
      Table 37. Tonnage fluctuations for the 10 years, 1880-1889 (unrigged craft).
      Table 38. Shipbuilding for the 10 years, 1880-1889 (general).
      Table 39. Shipbuilding for the 10 years, 1880-1889 (steamers).
Congressional appropriations:
      Table 40. Appropriations for the Pacific coast by localities.
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EQUIPMENT AND OCCUPATION.

Table 1, "Equipment of all craft", shows the number, tonnage, and value of all steamers, sailing vessels, and unrigged craft of over five tons burden, registered or owned in the customs districts of the states of California, Oregon, and Washington, in the year ended December 31, 1889, no matter what their occupation, or whether they were in occupation or not.

Table 2, entitled "Occupation and valuation by classes", analyzes the entries of Table 1 by separating the Pacific coast fleet into classes of occupation or pursuit. The steamers are divided into five classes, namely, those engaged in the transportation of both passengers and freight, ferryboats, fishing vessels, harbor tugs, and yachts; the sailing vessels are divided into four classes: freighters, fishing vessels, pilot boats, and yachts. A separate entry is also made of those steamers and sailing vessels which made no report of traffic operations. Separate entry is also made of the barges, lighters, and scows, grouped as unrigged. For each of these classifications the number, gross tonnage, valuation, and value per gross ton are given of vessels so classified allotted to each customs district, with totals for the states and coast.

OWNERSHIP BY CLASSES.

Table 3 shows the number, tonnage, and value of all classes of vessels allotted, respectively, to individual, joint stock, and corporate ownership, the entries being grouped for each class of craft and credited separately to each customs district, with totals for the states and coast, as in the other tables of equipment.

Table 4, "Ownership by localities", treats of the same subject as Table 3, except that instead of grouping the data by classes of occupation it groups them by localities, gathering under the head of each district all the vessels of all classes forming its fleet.

CONSTRUCTION.

Table 5, "Construction by classes", shows the number, tonnage, and value of all classes of vessels, respectively, constructed of wood, composite, and iron or steel, the entries being grouped for each class of craft and credited separately to each district, with totals for the states and coast.

Table 6, "Construction by localities", bears the same relation to Table 5 that Table 4 does to Table 3; that is, instead of grouping the data of construction by classes of occupation, it groups them by localities, gathering under the head of each district all the vessels of all classes forming its fleet.

TRAFFIC.

The statistics of traffic are presented in four tables numbered from 7 to 10, inclusive. The first, Table 7, "Traffic in general", contains the number of vessels, their tonnage, trips made, number of miles covered, freight moved, and passengers carried by all freight and passenger carrying craft of the Pacific coast.

Table 8, "Freight traffic by commodities", divides the gross statement of freight carried into the principal items of classified report.

The preceding tables have all been assigned to the customs districts described in the paragraph entitled "Localities of registration, equipment, and traffic", but in the two following tables (9 and 10) the statistics of traffic operations are assigned to the traffic districts described in the same paragraph. Table 9, for instance, entitled "Interdistrict movement (freight)", shows how many tons of each commodity were moved in or between any of the six traffic districts into which the coast has been marked off, and between any of these districts and foreign ports, Atlantic ports, and the Alaska coast and the Bering sea, while Table 10 shows how many miles were covered by the vessels engaged in the transportation of this freight, the entries in each table being made in such way as to show how the traffic vessels of each port were occupied, where they went, how many tons they carried, and how many miles they traveled during the year of report.

EARNINGS AND EXPENSES.

Four tables, numbered 11 to 14, are devoted to this part of the subject. Table 11, "Financial account in general", is almost a balance sheet of the industry of water transportation on the Pacific coast, showing as it does the gross earnings, expenses, and remaining net earnings of the coast fleet reporting their income and expenditure, the entries being made for the ports of registration, with totals for states and coast.

In Table 12, entitled "Itemized expense account", the expenses of reporting vessels, following the same division of customs districts and states, are divided into the various items of port charges, wages, provisions, current repairs, fuel (for steamers), other running expenses, commissions, insurance, taxes, office expenses, and other shore expenses, these being the eleven divisions of the expenditures.

EMPLOYÉS AND WAGES.

A still further subdivision of expenses is made in Table 13, "Employés and wages in detail". Here the monthly wages paid in each district to all grades of employés on vessels engaged in the transportation of freight and passengers is given, together with the number of each class of employés making up the ordinary crews required as the complement of all the reporting craft engaged in traffic operations.

Table 14, "Employés and wages by coast totals", is really a résumé of Table 13, taking up as it does the total number of employés of each grade and the aggregate and average monthly wages paid to each of these grades on the coast for all operating vessels engaged in passenger and freight traffic on the Pacific coast, the only segregations being those of steamers and sailing vessels.

FUEL ACCOUNT.

Table 15, entitled "Fuel account", applies only to steamers, and gives the amount of coal and wood burned by the steamers operated in the customs districts, together with the cost of the same.

GENERAL OPERATIONS BY CLASSES.

In the eight tables numbered from 16 to 23, inclusive, embraced under the above head, a separate account is given of the general operations of the six classes of vessels into which they were divided in Table 2; that is, freight and passenger vessels, ferryboats, fishing vessels, harbor tugs, pilot boats, yachts, and pleasure boats, with an additional table for those craft not making any traffic report and one in résumé. The items reported on, wherever practicable, are number, tonnage, value, trips made, miles traveled, freight moved, passengers carried, gross earnings, expenses, net earnings, common seamen employed, average wages per month paid to common seamen, number making up ordinary crews, total number of men employed, and total wages paid during the year.

COMPARATIVE STATISTICS.

All the tables which have been previously considered present only what may be called the positive statistics for the year ended December 31, 1889, whereas the sixteen tables numbered inclusively 24 to 39 give the comparative statistics either for the two years 1880 and 1889 or for the ten years 1880-1889. In the first five tables the two years of report alone are taken into consideration, the items being gathered from the transportation volume issued for the census of 1880 and from the schedules of the present inquiry.

The eleven tables, 29 to 39, inclusive, have been largely made up from information furnished this office by the Commissioner of Navigation. In Table 29 there are given the figures showing the number and tonnage of all steamers, sailing vessels, and barges registered in the customs districts of the Pacific coast for the ten years 1880–1889. In Tables 30, 31, 32, and 33 the number, aggregate, and average tonnage of each steamer, sailing vessel, and barge fleet belonging to each district is given for the decade in question. Tables 34, 35, 36, and 37 give the fluctuations of the annual average number and annual average tonnage of all vessels registered in the different customs districts. Tables 38 and 39 are records of the shipbuilding for the period in question, the first giving the number and tonnage of all steamers, sailing vessels, and barges built during those years in the various customs districts, and the second furnishing the number and tonnage of all steamers built in the various districts, arranged according to their methods of propulsion; that is, whether propellers, or side-wheel or stern-wheel steamers.

CONGRESSIONAL APPROPRIATIONS.

The last of the tables (Table 40) gives the amount appropriated by Congress for the survey, improvement, and maintenance of the ports, harbors, and landings on the Pacific coast and of the rivers flowing into them, from the date of the earliest appropriation down to and including that of the act of Congress of September 19, 1890. These sums, so far as the grouping of periods is concerned, are given: first, up to and including 1879; second, from 1880 to 1889, inclusive; third, the appropriations in 1890; and fourth, the total appropriations from first to last. So far as localities are concerned, these sums are given with considerable detail, the items not only being furnished for each state but for each locality on which the government money has been spent or for which it has been appropriated.

WHAT THE TABLES SHOW.

Passing from a consideration of the plan of the tables to that of the data contained in them, and taking them up in their order, the first fact to be noticed is that on the Pacific coast, in the year ended December 31, 1889, the floating equipment numbered 1,842 craft, having a tonnage of 441,939, and an estimated commercial value as returned in the schedules of \$23,067,370. Of this fleet 531 were steamers with a tonnage of 170,503 and a value of \$15,526,455; 822 were sailing vessels with a tonnage of 208,080 and a value of \$6,715,570, and 489 unrigged craft with a tonnage of 63,356 and a value of \$825,345. Of these totals California had 251 steamers with a tonnage of 106,667 and a value of \$9,792,905; 697 sailing vessels with a tonnage of 162,946 and a value of \$5,753,975, and 229 unrigged craft with a tonnage of 35,273 and a value of \$601,200; Oregon had 165 steamers with a tonnage of 50,62 and a value of \$4,492,200; 43 sailing vessels with a tonnage of 2,776 and a value of \$97,065, and 158 unrigged craft with a tonnage of 15,559 and a value of \$144,100; and Washington had 115 steamers with a tonnage or 13,208 and a value of \$1,241,350; 82 sailing vessels with a tonnage of 42,358 and a value of \$864,530, and 10= unrigged craft with a tonnage of 12,524 and a value of \$80,045. As will be seen by examining Table 1, the particulars of the fleets are given for each of the 9 customs districts located in the states of California, Oregon and Washington, the relative importance of each of these districts being clearly shown by their entries. That of San Francisco preponderates, its fleet numbering 1,018 out of a total of 1,842, its tonnage amounting t-289,750 out of a total of 441.939, and the value of its fleet reaching \$15,400,205 out of a total of \$23,067,370. must be remembered that the figures for the district of Puget sound (299 craft with a tonnage of 68,090 and value of \$2,185,925) really cover all the shipping belonging to the state of Washington, while in Oregon there are four districts, three of which, southern Oregon, Oregon, and Willamette, respectively, represent the ports of Coos bay Astoria, and Portland, the fleet of southern Oregon standing at 109 craft, with a tonnage of 3,887 and a value \$99,290; that of Oregon being 105, with a tonnage of 5,353 and a value of \$347,990, and that of Willamette being 136, with a tonnage of 57,402 and a value of \$3,998,485. This large value of the Portland fleet is due to the fact that out of its whole fleet 96 are steamers with a value of \$3,850,100, while Astoria has only 41 steamers with a value of \$284,100, and Coos bay 15 steamers with a value of \$70,600.

In Table 2 the 1,842 craft which constituted the total fleet of the Pacific coast are divided into their classes of occupation or pursuit, entries being made to show the number, gross tonnage, gross valuation, and value per ton of passenger and freight boats, sail and steam, ferryboats, harbor tugs, pilot boats, pleasure craft, fishing vessels, unrigged craft, and those miscellaneous vessels which furnished no report of traffic operations. From the figures so presented the following summarized results are obtained:

TABLE B.—SUMMARY SHOWING THE NUMBER, GROSS TONNAGE, AND ESTIMATED COMMERCIAL VALUE OF THE PRINCIPAL CLASSES OF VESSELS OWNED ON THE PACIFIC COAST IN 1889.

CLASSES OF VESSELS.	Number of vessels.	Gross tonnage.	Valuation.
Total		441, 939	\$23, 067, 370
Steamers	531	170, 503	15, 526, 455
Passenger and freight	354	129, 491	12, 660, 755
Ferry		24, 630	979, 300
Fish	24	4, 343	411, 500
Harbor tugs	70	6, 109	1, 120, 800
Yachts		63	6, 500
No traffic report	42	5, 867	347, 600
Sailing vessels	822	208, 080	6, 715, 570
Freight	647	194, 478	6, 112, 340
Fish		6. 372	280, 955
Pilot boats	o	418	49, 700
Yachte		612	69, 300
No traffic report	81	6, 200	203, 275
Unrigged craft	489	63, 356	825, 345

Material will also be found in Table 2 for a calculation showing the average tonnage, average commercial value, and average value per ton of the ten classes mentioned; and in the accompanying summary these averages will be found worked out for the six principal classes of vessels, the miscellaneous class here including yachts, fishing vessels, and those vessels for which no traffic was reported.

TABLE C.—SUMMARY SHOWING THE NUMBER, AVERAGE TONNAGE, AVERAGE VALUE PER VESSEL, AND AVERAGE VALUE PER GROSS TON OF THE PRINCIPAL CLASSES OF VESSELS OWNED ON THE PACIFIC COAST IN 1889.

CLASSES OF VESSELS.	Number of vessels.	Average tonnage.	Average commercial value.	Average value per gross ton
Total	1,842	240	\$12, 523	\$ 52. 20
Steamers	531	321	29, 240	91.06
Passenger and freight	354	366	35, 765	97.77
Ferry	38	648	25, 771	39, 76
Harbor tugs	70	87	16, 011	183. 47
Miscellaneous	69	149	11,096	74.53
Sailing vessels	822	253	8, 170	32. 27
Freight	647	301	9, 447	31. 43
Pilot boats	9 [46	5, 522	118.90
Miscellancous	166	79	3, 335	41.98
Unrigged craft	489	130	1,688	13. 03

VALUES.

It will be seen from this summary that the largest average tonnage was that of the ferryboats, 648, and that the sailing vessels and steamers engaged in freighting business ran very close in their average tonnage, the figures being respectively 301 and 366. The average value of these freighters, however, differed very materially, for, while the average value of the steam freighters was \$97.77 per gross ton, that of the sailing vessels was only \$31.43, the larger value of the steamers being due to the presence of machinery. It will be observed, too, in looking at Table 2, that the value per gross ton of passenger and freight steamers by no means keeps on an even basis in all localities, the lowest being in the Humboldt district, where the average value per gross ton was \$63.19, and the highest being at Wilmington, where it was \$197.75. The schedule calls for the "estimated commercial value", and the figures set down ran high or low according to the basis upon which the estimator placed his value. In some cases a man estimated his vessel at what it cost, in another case he estimated it only at what it would realize in sale; the insurance men had their estimate, while in many other cases the idea was rigidly held that the values would be used as a basis for taxation. The average value per gross ton of steam passenger and freight boats has been figured up to be \$97.77, and this, as in the case of the coast estimate for nearly all the classes, may be accepted as a reasonably close one.

With the exception of the ferryboats, the average value per ton of the principal classes of vessels on the Atlantic coast and Gulf of Mexico agrees very closely with that which has been arrived at on the Pacific coast. On the Atlantic coast the average value per gross ton of passenger and freight steamers is \$75.81, while on the Pacific coast it is \$97.77; that of harbor tugs on the Atlantic coast is \$166.29, while on the Pacific coast it is \$183.47. That of the sailing freighters on the Atlantic coast is \$30.77, while on the Pacific coast it is \$31.43, a difference of but 66 cents per ton. The parallelism of average is still closer in the case of the unrigged craft, that on the Atlantic coast being \$12.57 and on the Pacific coast \$13.03, a difference of but 46 cents per ton.

OWNERSHIP.

The statistics of ownership are only given for the 1,353 steamers and sailing vessels of the Pacific coast fleet, the data being grouped in Table 3 according to the various classes and in Table 4 according to the various localities. The ownership is treated under the three heads of individual, joint stock, and corporate, the number, aggregate tonnage, and valuation of each class of craft being given under each of these heads. It is seen from Table 3, for example, that of the 531 steamers of the Pacific coast 252 were owned by individuals, and that the tonnage and valuation of these individually owned steamers were 34,114 and \$3,147,650; that 25 of them, with a tonnage of 3,368 and a value of \$324,500, were owned by joint stock companies, and that the remaining 254, with a tonnage of 133,021 and a value of \$12,054,305, were owned by corporations. Of the 822 sailing vessels 742, with a tonnage of 166,591 and a value of \$5,853,465, were owned by individuals; 78, with a tonnage of 40,855 and a value of \$843,105, were owned by corporations, only 2, with a tonnage of 634 and a value of \$19,000, were owned by joint stock companies. Putting the steam and sail together, this will mean that out of the total fleet 994, with a tonnage of 200,705 and a value of \$9,001,115, were owned by individuals; that 27, with a tonnage of 4,002 and a value of \$343,500, were owned by joint stock companies, and that 332, with a tonnage of 173,876 and a value of \$12,897,410, were controlled by corporate ownership. The excess in the average tonnage of corporate owned vessels over those owned by individuals and joint stock companies is plainly set down in the subjoined summary:

TABLE D.—SUMMARY SHOWING THE AVERAGE TONNAGE OF STEAMERS AND SAILING VESSELS ON THE PACIFIC COAST OWNED BY INDIVIDUALS, JOINT STOCK COMPANIES, AND CORPORATIONS

AVERAGE TONNAGE PER VESSEL BY OWNERSHIP.					
Individual.	Joint stock.	Corporation			
202	148	524			
135 225	135 317	524 524			
	Individual.	OWNERSHIP. Individual. Joint stock. 202 148 135 135			

The relative character of the corporate ownership is also to be seen in the columns of valuation, where it is shown that the value of the vessels so owned stands at \$12,897,410, or \$3,552,795 over and above the combined valuation of vessels owned by individuals and joint stock companies. In the subjoined summary are presented the totalized figures of number, tonnage, and value by ownership of each class of steamers and sailing vessels:

TABLE E.—SUMMARY SHOWING THE TOTALS OF NUMBER, TONNAGE, AND VALUE FOR EACH CLASS OF VESSELS ON THE PACIFIC COAST, GROUPED UNDER THE HEAD OF INDIVIDUAL, JOINT STOCK, AND CORPORATE OWNERSHIP.

	Total number of vessels.	ĺ	NUMBER	AND TONN.	VALUATION BY OWNERSHIP.					
CLASSES OF VESSELS.		Individual.		Joint stock.		Corporate.				
		Number.	Tonnage.	Number.	Tonnage.	Number.	Tonnage.	Individual.	Joint stock.	Corporate.
Total	1, 353	994	200, 705	27	4,002	332	173, 876	\$9,001,115	\$343, 500	\$12, 897, 410
Steamers	531	252	34, 114	25	3, 368	254	133, 021	3, 147, 650	324, 500	12, 054, 305
Passenger and freight	354	179	27, 140	18	2, 825	157	99, 526	2, 417, 850	246, 500	9, 996, 405
Ferry	38	7	202	. 2	216	29	24, 212	28, 600	13,000	937, 700
Fish	24	3	626	2	149	17	3, 568	45,000	24,000	342,500
Harbor tugs	70	33	2, 189	. 3	178	34	3,742	440, 800	41,000	639, 000
Yachts	3	2	45			1 !	18	4. 000	,	2,500
No traffic report	42	26	3, 912			16	1, 955	211, 400		136, 200
Sailing vessels	822	742	166, 591	2	634	78	40, 855	5, 853, 465	19, 000	843, 1 0 5
Freight	647	587	137, 048	1	594	59	36, 836	5, 369, 835	15, 000	727, 505
Fish	60	46	4, 084	1	40	13	2, 248	199, 555	4,000	77, 400
Pilot boats	9	8	354	<u> </u>	 	1	64	39. 700		10,000
Yachta	25	25	612	ļ	. 			69, 300		
No traffic report	81	76	4, 493	 		5	1, 707	175, 075		28, 200

Table 4 presents the figures of Table 3 grouped according to localities; that is, to each of the nine districts of the coast it allots the various classes of vessels and enters them up by number, tonnage, and value, according to ownership, and the substance of what is there presented may be adequately arrived at by those not interested in details through a study of the following summary table:

TABLE F.—SUMMARY SHOWING THE TOTALS OF NUMBER, TONNAGE, AND VALUE OF THE FLEET OF EACH DISTRICT ON THE PACIFIC COAST, GROUPED UNDER THE HEAD OF INDIVIDUAL, JOINT STOCK, AND CORPORATE OWNERSHIP.

	Total number of vessels.		NUMBER	AND TONN	VALUATION BY OWNERSHIP.					
CUSTOMS DISTRICTS.		Individual.		Joint stock.		Corporate.		Individual.	Joint stock.	Cornorata
		Number.	Tonnage.	Number.	Tonnage.	Number.	Tonnage.			
Total	1, 353	994	200, 705	27	4, 002	332	173, 876	\$9 . 001, 115	\$343,500	\$12, 897, 410
Steamers	531	252	34, 114	25	3.368	254	133, 021	3, 147, 650	324, 500	12, 054, 303
San Diego, California	8	2	29			6	771	8, 500		54,000
Wilmington, California	10	2	48			8	885	7,500		181, 000
San Francisco, California	223	78	16, 533	15	2, 656	130	84, 960	1, 674, 500	227, 000	7, 557, 965
Humboldt, California	10	8	598			2	187	71, 500		11,000
Southern Oregon, Oregon	15	11	485	3	173	1	113	44, 100	22, 500	4,000
Yaquina, Oregon	13	10	2,010		!	3	271	210, 400		77, 000
Oregon, Oregon	41	26	2, 083	3	121	12	968	185, 100	17,000	82.000
Willamette, Oregon	96	35	5, 480	2	216	59	38, 708	370, 400	13, 000	3, 466, 70
Puget sound, Washington	115	80	6, 848	2	202	33	6, 158	575, 650	45, 000	620, 700
Sailing vessels	822	742	166, 591	2	634	78	40, 855	5, 853, 465	19, 000	843, 105
San Diego, California	21	19	319			2	142	21, 975		15, 000
Wilmington, California	13	13	694					37, 400		
San Francisco, California	649	601	145, 766	1	594	47	12, 159	5, 060, 300	15, 000	358, 800
Humboldt, California	14	14	3, 272	ļ	 [!]			245, 500		
Southern Oregon, Oregon	1	1	90	!			••••	8,000		·
Oregon, Oregon	36	35	626	j		1	64	40,080		10,000
Willamette, Oregon	6	6	1, 996		ا'			38, 985		
Puget sound, Washington	82	53	13, 828	1	40	28	28, 490	401, 225	4, 000	459, 30

STATISTICS OF CONSTRUCTION.

Tables 5 and 6 present the same statistics, but in two methods. They correspond in the plan of their presentation with Tables 3 and 4. The first takes up each class as a group and for each of the districts on the coast enters up the number, tonnage, and value for each material of construction, whether wood, composite, or iron and steel; while in Table 6 the facts connected with materials of construction are assigned to localities. The figures of the tables show that iron and steel are not yet largely used as materials of construction on the Pacific coast, only 25 of the entire fleet of sailing vessels and steamers being so constructed, while vessels of composite construction are almost unknown. However, such vessels as are constructed of iron and steel are of unusually large tonnage. The following summary table shows how much larger is the average tonnage of vessels built of these materials than the average tonnage of vessels built of wood or composite:

TABLE G.—SUMMARY SHOWING THE AVERAGE TONNAGE AND AVERAGE VALUE PER TON OF VESSELS CONSTRUCTED OF WOOD, COMPOSITE, AND IRON AND STEEL.

	MATERIALS OF CONSTRUCTION.									
CLASSES OF VESSELS.	Wo	ool.	Comp	oosite.	Iron and steel.					
	Average tonnage.	Average value per ton.	Average tonnage.	Average value per ton.	Average tonnage.	Average value per ton.				
Total	247	\$46.86	649	\$84.75	1, 968	\$137.33				
Steamers	240	71. 85	1, 089	91. 83	2, 009	139. 34				
Sailing vessels	252	32. 22	209	47.85	997	40.12				

In the subjoined summary the main facts of the relative size and value of the different classes of craft constructed of the materials under consideration are given:

TABLE H.—SUMMARY SHOWING THE TOTALS OF NUMBER, TONNAGE, AND VALUE OF EACH CLASS OF VESSELS ON THE PACIFIC COAST, WHETHER CONSTRUCTED OF WOOD, COMPOSITE, OR IRON AND STEEL.

	NUMBE	R AND TON	NAGE BY	VALUATION BY MATERIALS OF CON STRUCTION.					
CLASSES OF VESSELS.	Wood.		Composite.		Iron and steel.		·		
	Num- ber.	Tonnage.	Num- ber.	Ton- nage.	Num- ber.	Tonnage.	Wood.	Com- posite.	Iron and steel.
Total	1, 326	328, 076	2	1,298	25	49, 209	\$15, 373, 960	\$110,000	\$6, 758, 065
Steamers	506	121, 202	1	1, 089	24	48, 212	8, 708, 390	100, 000	6, 718, 065
Passenger and freight	336	82, 262	1	1,089	17	46, 140	6, 162, 690	100,000	6, 398, 065
Ferry	37	24, 215			1	415	939, 300		40,000
Fishing	24	4, 343	 			 	411,500		
Harbor tugs	66	5, 540		! <u> </u>	4	569	985, 800		135, 000
Yachts	3	63		<u> </u>			6, 500		
No traffic report	40	4, 779		¦	2	1, 088	202, 600		145, 000
Sailing vessels	820	206, 874	1	209	1	997	6, 665, 570	10,000	40,000
Freight	645	193, 272	1	209	1	997	6, 062, 340	10,000	40,000
Fish	60	6, 372		<u> </u>	: . 		280, 955		
Pilot boats	9	418	ļ			!	49, 700		
Yachts	25	612					69, 300		
No traffic report	81	6, 200		 			203, 275		

TRAFFIC OPERATIONS.

From Table 7 it is seen that during the year of report the traffic movement of the Pacific coast fleet making returns amounted to 8,818,363 tons and 4,019,329 passengers. This traffic, it should be understood, is made up of that carried by steam or sailing vessels regularly engaged in the transportation of freight and passengers; the freight moved by towboats in freight laden lighters, scows, and other unrigged craft, together with lumber rafts, the traffic operations in this case being credited to the steamers doing the towing; that moved by unrigged craft, which was not reported on by any towing steamer, and which is therefore entered up as a separate account; the freight and passengers carried on ferryboats, with the exception of the traffic movement of the railroad ferryboats, and the freight traffic of those vessels owned by fishing concerns, but employed either to carry provisions and appliances to the men on the fishing grounds or to bring back their fish catch, and those engaged in carrying raw salmon to and bringing the cannel fish from the canneries.

The ferryboats, independent of railroads, had a traffic of 14,772 tons freight and 2,639,095 passengers, these figures being included in the 8,818,363 tons freight and the 4,019,329 passengers, the traffic operations forming the base of this report. The railroad ferryboats carried 2,431,564 tons freight and 11,652,764 passengers, these figures being included in the report of "Transportation by railroads".

The railroad ferry business is not the only addition that should be made to the traffic report of the Pacific coast transportation by water. Another large set of figures is found in the freight movement of the steamers and sailing vessels registered in Atlantic ports but engaged wholly or partially in business on the Pacific coast. The steamers belonging to this class are those which form the western fleet of the Pacific Mail Steamship Company. These steamers were 10 in number, their terminals being San Francisco and Panama and San Francisco and Chinese ports, so that their freight movement distinctly belongs to the Pacific; whereas, from the fact that their home port is New York, the rules under which the census investigation was conducted required that that port should be credited with their equipment and income and expenditure. The freight and passenger movement, however, is to be credited to San Francisco, and is given in the following statement:

PACIFIC MAIL STEAMSHIP COMPANY'S FREIGHT AND PASSENGER TRAFFIC ON ITS PACIFIC OCEAN SERVICE IN 1889.

· FREIGHT.		
Through New York and through San Francisco freight via Panama	ons. , 808 , 041 , 204	
Total freight, Panama line	8	7, 053
· · · · · · · · · · · · · · · · · · ·	, 709 , 701	
Total freight, China line	5	6, 410
Total freight, both lines	14	3, 463
PASSENGERS.		
Outward bound passengers, both lines	5	MBER. 5, 539 4, 614
Total passengers, both lines.	1	0, 153

In connection with these figures should be mentioned \$1,550,665 of treasure carried outward from San Francisco and \$80,788 brought inward on the Panama line, and \$6,905,541 of treasure carried outward from San Francisco and \$250,000 brought to San Francisco on the China line, a total treasure movement of \$8,786,994, of which \$8,456,206 were taken out and \$330,788 were brought in.

The sailing vessels hailing from Atlantic home ports but conducting all or some portion of their operations in Pacific waters were 86 in number, distributed among Maine, Massachusetts, and New York ports as follows:

Belfast, Maine	1	Wiscasset, Maine	1	Portland, Maine	3
Searsport, Maine	3	Waldoboro, Maine	3	Boston, Massachusetts	12
Thomaston, Maine	5	Damariscotta, Maine	3	New Bedford, Massachusetts	4
Camden, Maine	3	Bath, Maine	28	New York, New York	20

These vessels did a general freighting business during 1889, and that part of it which is credited to the Pacific coast includes the freighting between domestic Pacific ports or from domestic Pacific to foreign ports; that is, it covers such operations as the carrying of wheat from San Francisco, California, to Liverpool, England, or from Portland, Oregon, to Hull, England; the carrying of lumber from Port Townsend, Washington, to Buenos Ayres, South America, or of sulphur from Yokohama, Japan, to San Francisco, California. In the conduct of this business these vessels made 686 trips, sailed over 1,240,533 miles, and carried 296,299 tons of merchandise.

In a computation conducted upon the lines laid down for this report mention should also be made of those craft trading to Pacific coast ports flying foreign flags but chartered by American concerns or individuals. The port of San Francisco presents eight examples of this kind. Two of these (steamers) sailed, respectively, under the Mexican and Hawaiian flags, and were engaged in bringing coal (some 8,000 tons) from Nanaimo, British Columbia, to San Francisco. Three other steamers formed the fleet of the Occidental and Oriental Steamship Company. They were under charter from an English company, and in 1889 carried out 25,589 tons of merchandise and \$10,218,525 of treasure and brought in 44,686 tons of merchandise and \$10,229,225 of bullion. In addition to this the Occidental and Oriental Steamship Company in 1889 carried 20,288 passengers. Two other steamers carried the Hawaiian flag and ran from San Francisco in the Australian and Sandwich islands trade, their operations standing for the movement of 34,887 tons of merchandise. The last example was a sailing vessel, and also flew the Hawaiian flag, but her operations could not be learned.

An addition to the above account of freight moved comes from an investigation into the towing business, not that of the towing of vessels in or out of harbor, but (1) the towing of barges, lighters, etc., and (2) the towing of logs and other lumber. It should be repeated here that the 314,597 tons of freight set down in Table 7 as the work of the unrigged do not stand as the total freight movement of the 489 unrigged, but only as the freight movement not reported by the steamers furnishing the motive power for these unrigged craft; and it is certain that, although a very great deal of towed freight is covered in the report of the steamers towing, the 314,597 tons of freight not so covered by no means make up the balance of freight moved in unrigged craft on the Pacific coast in 1889. There are two reasons for this:

- (1) In the California ports comparatively little towing is done and the reports can be looked upon as reasonably complete; but in the northern rivers and on Puget sound the conditions are quite different. On Puget sound, for example, the commodities towed were chiefly farm produce, lumber, brick, stone, and lime. As a rule the barges and scows on which these commodities were placed are loaded by the shipper, while in very many cases these barges are owned by farmers, produce dealers, lumbermen, and those living generally along the sound. The same remarks may be applied to the barge business of the Columbia and Willamette rivers, of Shoalwater bay, and of rivers tributary or neighboring to these waterways. In order to get a certain base for an estimate a special attempt was made to secure full returns of the unrigged craft in Coos bay district. This, by the kind assistance of the collector of customs at that place, was satisfactorily accomplished, and the result is embodied in Table 7. Altogether, figuring on such estimates as these from direct but general information and from the reports of steamer captains, it would be a legitimate and proper calculation to add a freight movement of at least 700,000 tons to the unrigged business of the Pacific coast.
- (2) Besides towing barges the steamboats of the northern ports were used for towing logs and rafts of lumber. Very diligent efforts were made from the outset to secure a full report of the amount of logs so towed, but it was found an impossibility, and it can be reasonably affirmed that in the schedules of Coos bay, Port Townsend, Astoria, Yaquina, Portland, and Eureka there should be 1,500,000 tons of logs, in round numbers, that do not find a place there.

DETAILS OF COMMODITIES.

An analysis of Pacific coast freight traffic can only be made of the 8,818,363 tons of freight whose movement was reported on in the census schedules. The first step in this analysis will be found in Table 8, in the form of a subdivision of this gross amount into the six following principal classes of commodities: agricultural products, coal products of mines and quarries, lumber and other forest products, animal products including fish, manufactures and general merchandise.

The agricultural products include the yield alike of field, orchard, and garden, both at home and abroad.

The products of mines and quarries include rock, gravel (largely used in the manufacture of artificial stones pavement), ore, building stone, and salt.

Lumber and other forest products include match wood, railroad ties, piles, charcoal, and tan bark.

Animal products include live stock, wool, hides, fish, whale oil, seal skins, otter skins, dogfish oil, elk hideselk horn, and kindred articles.

Manufactures and general merchandise include all such commodities as were returned by their carriers in the

The Panama steamers brought as inward freight from Mexican and Central American ports to San Francisc sugar, coffee, cocoa, cochineal, limes, hides, skins, and ores; the freight taken to southern ports from San Francisc includes boilers, barbed wire and wire goods, beef and pork, car and railroad materials, canned goods, provision lumber, machinery, nails, live stock, silk goods, and wheat; the materials brought from China to San Francisco by the Pacific Mail Steamship Company's steamers consisted chiefly of beans, Java coffee, curios, indigo, gunny bage hemp, jute, opium, rice, silk goods and raw silk, spices, manilla sugar, tea and tea dust, chowchow, bamboo matting, plants and trees, rattan, tapioca, and tobacco; and the commodities carried from San Francisco to Chin and Japan consisted chiefly of animals, poultry, pearl barley, beans and peas, canned goods, flour, fruit and vegetables, ginseng, grain, groceries, hay, horns and hoofs, leather, lumber, machinery and castings, oil, quicksilver shrimps and shrimp shells (sometimes running as high as 500 tons per steamer), dried fish, old junk (especially wire rope used for making nails), old glass (for glazing purposes), abalones, clocks (once a large trade), and corpses.

Omitting the 1,754,001 tons of manufactures and general merchandise, it will be seen that the largest commodity movement was in lumber and other forest products, the figures standing at 4,239,656 tons. Next come agricultural products, 1,152,100 tons, closely followed by coal, 1,075,600 tons. The last item, with the exception of animal products, fish, etc., which has already been referred to, is mines and quarries, the products of these amounting to 522,497 tons. Of these totals, the steamers moved 851,041 tons of agricultural products, 407,635 tons of coal, 305,551 tons of the products of mines and quarries, 3,023,547 tons of lumber and other forest products, 30,706 tons of animal products, and 1,123,460 tons of manufactures and general merchandise. Sailing vessels carried 262,559 tons of agricultural products, 627,995 tons of coal, 214,946 tons of the products of mines and quarries, 1,154,325 tons of lumber and other forest products, 43,803 tons of animal products, and 458,198 tons of manufactures and general merchandise. On the unrigged craft there was carried, over and above that reported by the steamers furnishing the motive power, 38,500 tons of agricultural products, 39,970 tons of coal, 2,000 tons of the products of mines and quarries, 61,784 tons of lumber and other forest products, and 172,343 tons of manufactures and general merchandise.

INTERDISTRICT TRAFFIC.

The figures of Table 8 are valuable only as showing the amount of freight moved by the fleets belonging to each of the customs districts and must not be taken as showing the traffic of any one port. It was to arrive at this result that the scheme of interdistrict movement, described on page 12, has been formulated and carried out. This is shown in detail in Tables 9 and 10. In these tables the 8,818,363 tons of freight, whose components were shown in Table 8, still form the total, and the entries show whither this freight was carried, whence it was brought, and how many miles were covered in its distribution. The entries were made so as to show the traffic movement of steamers with their unrigged consorts, of sailing vessels, and of the combined fleet for each district, while the same classification of commodities obtains in Table 9 that was observed in Table 8. The entries show that in nearly every case the vessels of each district traveled far in the disposition of their freight. It will be seen in the entries for the San Francisco fleet, for instance, that some of the vessels of that district carried 1,651 tons of coal and 896 tons of other products from points in Puget sound to other points in Puget sound, and that they traveled 724 miles in so doing; that other San Francisco vessels carried 61,764 tons of lumber from Puget sound to foreign ports and covered 228,285 miles in the traffic; that other San Francisco vessels traveled between ports on the Oregon coast and ports on the southern California coast, carrying 6,576 tons of lumber and 220 tons of agricultural products, the distance of their voyages being 29,188 miles; that others sailed between southern California coast points and points in Alaska and the Bering sea, carrying 638 tons of general merchandise, and sailing 2,400 miles; and that others traded between foreign ports and foreign ports, carrying 24,916 tons of coal, 12,612 tons of lumber, 230 tons of animal products and fish, and 900 tons of other merchandise, and traveled 166,363 miles in this trade.

By internal traffic is meant the freight movement within the six coast districts, that is, from point to point in the districts embracing (1) southern California coast, (2) San Francisco bay and tributary rivers, (3) northern California coast, (4) Oregon coast, (5) Columbia and Willamette rivers, and (6) Puget sound and the sea coast of Washington.

By coastwise traffic is meant the freight movement between the points of any two of the coast districts described above.

By Atlantic traffic is meant the freight movement between United States Pacific and Atlantic coast points.

By foreign traffic is meant the freight movement between foreign ports and any other port, including trade between foreign port and foreign port.

By Alaska and Bering sea traffic is meant the freight movement between points on the Alaskan coast or Bering sea and any of the six coast districts.

The proposed segregation of freight movement under these heads is given in the following summary:

TABLE I.—SUMMARY SHOWING THE AMOUNT OF FREIGHT CARRIED AND MILES TRAVELED IN THE INTERDISTRICT TRAFFIC OF THE PACIFIC COAST, GROUPED UNDER THE HEADS OF INTERNAL, COASTWISE, ATLANTIC, FOREIGN, AND ALASKA AND BERING SEA TRADE.

INTERNAL TRAFFIC.

·		NUMBER.	
WITHIN THE—	Tons.	Miles.	
Total	-,, ,	5, 733, 186	
1 Southern California coast district		75, 782	
2 San Francisco bay and rivers district	2, 043, 051	2, 526, 889	
3 Northern California coast district.		41, 957	
4 Oregon coast district	206, 742	133, 374	
5 Columbia and Willamette rivers district		1, 207, 394	
8 Puget sound and Washington district	2, 435, 823	1, 747, 790	

TABLE I.—SUMMARY SHOWING THE AMOUNT OF FREIGHT CARRIED AND MILES TRAVELED IN THE INTERDISTRICT TRAFFIC OF THE PACIFIC COAST, ETC.—Continued.

COASTWISE TRAFFIC.

FROM—	то—	Tons.	Miles
Total coastwise traffic		2, 372, 825	3, 153,
Total		163, 442	230,
Southern California coast	2 San Francisco bay and rivers	161, 308	134
1	4 Oregon coast	27	17
Southern California coast	5 Columbia and Willamette rivers	1,942	19
Southern California coast	6 Puget sound and Washington	165	59
Total		483, 825	1, 234
San Francisco bay and rivers	1 Southern California coast	320, 967	13•
	3 Northern California coast	39. 883	321
- I	4 Oregon coast	44, 632	166
San Francisco bay and rivers	5 Columbia and Willamette rivers	14, 293	38
San Francisco bay and rivers	6 Puget sound and Washington	64, 050	563
Total		623, 417	544
Northern California coast	1 Southern California coast	98, 783	211
	2 San Francisco bay and rivers	522, 434	328
i	5 Columbia and Willamette rivers	1, 260	2
Northern California coast	6 Puget sound and Washington	940	:
Total		209, 845	238
Oregon coast	1 Southern California coast	17, 276	52
	2 San Francisco bay and rivers	191, 255	173
· · · · · · · · · · · · · · · · · · ·	5 Columbia and Willamette rivers	1, 102	4
Oregon coast	6 Puget sound and Washington	212	8
Total		68, 364	210
Columbia and Willamette rivers	1 Southern California coast	11, 418	20
	2 San Francisco bay and rivers	42, 720	155
	3 Northern California coast	2, 445	1
Columbia and Willamette rivers	4 Oregon coast	4, 085	16
Columbia and Willamette rivers	6 Puget sound and Washington	7, 696	22
Total		823, 932	688
Puget sound and Washington	1 Southern California coast	47, 595	87,
Puget sound and Washington	2 San Francisco bay and rivers	773, 484	563,
0.	3 Northern California coast	321	2.
	4 Oregon coast	400	9.
Puget sound and Washington	5 Columbia and Willamette rivers	2, 132	26,
A 3	TLANTIC TRAFFIC.		
Total		5, 550	20.
· i	-		
·	-		30, 25
San Francisco bay and rivers	8 Atlantic ports	5, 550 (a) 5, 550	
San Francisco bay and rivers	8 Atlantic ports	(a)	13, 25
San Francisco bay and rivers Atlantic ports For Total foreign traffic	8 Atlantic ports	(a) 5,550	13,2
San Francisco bay and rivers Atlantic ports For Total foreign traffic.	8 Atlantic ports	707, 085 278, 997	13,5 17,6 2,811,5
San Francisco bay and rivers Atlantic ports For Total foreign traffic Total Southern California coast	8 Atlantic ports	707, 085 278, 997 4, 720	2, 811. 1, 392.
Total foreign traffic. Total Southern California coast San Francisco bay and rivers.	8 Atlantic ports	707, 085 278, 997	2, 811. 1, 392. 62.
San Francisco bay and rivers Atlantic ports Formula foreign traffic Total Southern California coast San Francisco bay and rivers Northern California coast	8 Atlantic ports. 2 San Francisco bay and rivers. OREIGN TRAFFIC: 7 Foreign ports. 7 Foreign ports.	707, 085 278, 997 4, 720 138, 043	2, 811, 1, 392. 62. 785, 74.
San Francisco bay and rivers Atlantic ports Formula foreign traffic Total Southern California coast San Francisco bay and rivers Northern California coast Oregon coast	8 Atlantic ports. 2 San Francisco bay and rivers. OREIGN TRAFFIC: 7 Foreign ports. 7 Foreign ports. 7 Foreign ports.	707, 085 278, 997 4, 720 138, 043 12, 789	13, 17. 2, 811. 1, 392. 62. 785, 74. 9. 23,
San Francisco bay and rivers. Atlantic ports. For Total foreign traffic. Total . Southern California coast. San Francisco bay and rivers. Northern California coast. Oregon coast. Columbia and Willamette rivers.	8 Atlantic ports. 2 San Francisco bay and rivers. OREIGN TRAFFIC: 7 Foreign ports. 7 Foreign ports. 7 Foreign ports. 7 Foreign ports. 7 Foreign ports.	707, 085 278, 997 4, 720 138, 043 12, 789 1, 160	13, 17. 17. 17. 17. 17. 17. 17. 17. 17. 17.
San Francisco bay and rivers. Atlantic ports. For Total foreign traffic. Total . Southern California coast. San Francisco bay and rivers. Northern California coast. Ortegon coast. Columbia and Willamette rivers. Puget sound and Washington	8 Atlantic ports. 2 San Francisco bay and rivers. OREIGN TRAFFIC: 7 Foreign ports. 7 Foreign ports. 7 Foreign ports. 7 Foreign ports. 7 Foreign ports. 7 Foreign ports.	707, 085 278, 997 4, 720 138, 043 12, 789 1, 180 3, 286	13, 17. 17. 17. 17. 17. 17. 17. 17. 17. 17.

TABLE 1.—SUMMARY SHOWING THE AMOUNT OF FREIGHT CARRIED AND MILES TRAVELED IN THE INTERDISTRICT TRAFFIC OF THE PACIFIC COAST, ETC.—Continued.

FOREIGN TRAFFIC-Continued.

FROM—	то	Tons.	Miles.
Total		389, 310	1, 250, 287
7 Foreign	1 Southern California coast	39, 594	82, 211
7 Foreign	2 San Francisco bay and rivers	319, 880	782, 505
7 Foreign	5 Columbia and Willamette rivers	5, 448	30, 873
7 Foreign	6 Puget sound and Washington	18, 718	328, 111
7 Foreign.	8 Atlantic ports	3, 136	16, 155
7 Foreign	9 Alaska and Boring sea	2, 534	10, 432
7 Wholly foreign		38, 778	168, 889

ALASKA AND BERING SEA TRAFFIC.

Total Bering sea traffic		98, 752	544, 751
Total		50, 795	288. 589
1 Southern California coast	9 Bering sea	638	2, 400
2 San Francisco bay and rivers	9 Bering sea	49, 357	234. 830
5 Columbia and Willamette rivers	9 Bering sea	(a)	25, 900
6 Puget sound and Washington	9 Bering sea	800	25, 459
Total		47, 774	245, 546
9 Bering sea	2 San Francisco bay and rivers	45, 946	234, 831
9 Bering sea	6 Puget sound and Washington	1. 828	10, 715
9 Bering sea	9 Bering sea	183	10, 616

a Ballast.

From the preceding summary it will be seen that the whole internal traffic amounted to the movement of 5,634,151 tons, and that while the internal trade of the San Francisco bay and rivers amounted to 2,043,051 tons, that of Puget sound district was even greater, amounting to 2,435,823 tons.

In considering the coastwise trade it will be seen that from points on the southern California coast to all other points on the Pacific coast there were sent out 163,442 tons; from points on the San Francisco bay and rivers, 483,825 tons; from the northern California coast, 623,417 tons; from the Oregon coast, 209,845 tons; from the Columbia and Willamette rivers, 68,364 tons, and from Puget sound, 823,932 tons, making a total of 2,372,825 tons of freight. This shows that the district from which the greatest coastwise trade emanated was No. 6, Puget sound and Washington. The explanation of this is found in the 773,484 tons of freight brought from Puget sound to San Francisco made up of 40,909 tons of coal and 167,850 tons of lumber. The next largest coastwise trade is that emanating from district No. 3, northern California coast, the bulk of this being 522,434 tons of freight, mostly lumber, brought to San Francisco.

The trade between Pacific coast ports and Atlantic ports was confined on the Pacific side to San Francisco, and even in this case the business done in American vessels registered in San Francisco was only one of imports, the 5,550 tons of freight received being general merchandise.

The foreign trade amounted to 707,085 tons, made up of 278,997 tons of exports, 389,310 tons of imports, and 38,778 tons of wholly foreign movement. As might naturally be expected from its importance, San Francisco stands first in the figures of exports and imports, these being respectively 138,043 and 319,880 tons. Puget sound stands next in importance as an exporter, the figures being 115,238 tons, although its imports fall to 18,718 tons. In the case of San Francisco, the exports are made up of coal, lumber, agricultural products, and general merchandise, while in the case of Puget sound they are comprised almost entirely of coal and lumber.

The Alaska and Bering sea trade is almost equally divided between exports and imports, the first being 50,795 tons, and the second 47,774 tons. With the exception of 638 tons of general merchandise taken by San Francisco vessels plying from southern California ports, and 800 tons of lumber taken in San Francisco vessels from Puget sound, all the trade to Alaska and Bering sea was conducted by San Francisco vessels plying from San Francisco. The trade from Alaska and Bering sea was mostly with San Francisco, the two great commodities being coal and animal products including fish.

MILEAGE.

The relation of the mileage of this traffic to the freight movement is very distinctly shown in the accompanying summary giving the freight moved, distance covered, and average distance of movement per ton of each class of traffic. The distance covered in the movement of the 5,634,151 tons of freight constituting the internal traffic was 5,733,186 miles, or an average movement per ton of 1.02 miles. The distance traveled in the coastwise traffic movement was 3,153,432 miles and the freight moved 2,372,825 tons, this giving an average movement per ton of 1.33 miles. The distance covered in the foreign freight traffic was 2,811,896 miles, or an average movement per ton of 3.98 miles. The average distance in the Atlantic business was even greater, being 5.45 miles, but this large average is due to the fact that of the 30,250 miles traveled, 13,250 miles were in ballast. The Alaska and Bering sea average movement per ton was the highest of all, being 5.52 miles, and this was partly due to the fact that of the 544,751 miles traveled, 25,900 were in ballast, and partly to the other fact that while the cruises in the Bering sea are exceedingly long the freight is much smaller than that of vessels engaged in usual lines of commerce.

TABLE J.—SUMMARY SHOWING THE FREIGHT MOVED, DISTANCE COVERED, AND AVERAGE DISTANCE OF EACH TON OF FREIGHT MOVED IN THE FIVE DIVISIONS OF TRAFFIC MOVEMENT BY ALL OPERATING CRAFT.

TRAFFIC MOVEMENT.	Freight moved. (Tons.)	Distance covered. (Miles.)	Average movement per ton. (Miles.)
Total	8, 818, 363	12, 273, 515	1.39
Internal	5, 634, 151	5, 733, 186	1.02
Coastwise	2, 372, 825	3, 153, 432 *	1.33
Foreign	707, 085	2, 811, 896	3.98
Atlantic	5, 550	30, 250	5.45
Bering sea	98, 752	544, 751	5. 52

EARNINGS AND EXPENSES.

In Table 11 the figures are given which show how the business of transportation by water paid during the year ended December 31, 1889, for all operating craft over 5 tons burden. These figures are furnished under the headings of gross earnings, expenses, and net earnings, and are given for the steamers and unrigged craft and for sailing vessels allotted to their customs districts. The figures in the first part of the table indicate that the gross earnings of the whole operating fleet amounted to \$20,628,316.28, the expenses to \$17,274,809.30, leaving the net earnings at \$3,353,506.98. The largest figures of this total are for the district of San Francisco, the gross earnings of its operating fleet standing at \$14,191,341.93, with expenses of \$11,701,926.71 and net earnings at \$2,489,415.22. The next largest account is that of the Willamette or Portland district, its fleet earning \$3,439,199.57, paying out \$3,088,220.32, and making as net earnings \$350,979.25. The net earnings of the Puget sound or Port Townsend district fleet were much larger, the figures being \$411,862.61, which is larger than the net earnings of the fleet registered in all the districts of Oregon, this sum being a profit on the gross earnings of \$2,214,731.23, after paying out \$1,802,868.62 for expenses. The other districts placed in the order of their importance as judged from the financial account stand as Oregon, Humboldt, Yaquina, Wilmington, southern district of Oregon, and San Diego.

Of the totals of the combined fleets the gross earnings of the operating steamers and unrigged craft amounted to \$13,237,222,29, the expenses to \$11,446,692.77, and the net earnings to \$1,790,529.52. San Francisco maintains its importance in the returns of the steamers' accounts just as it did in the returns of the entire fleet, the gross earnings being \$8,015,094.94, the expenses \$6,872,414.76, and the net earnings \$1,142,680.18. The Willamette district also retains its relative importance, the gross earnings being \$3,383,404.26, the expenses \$3,050,676.43, and the net earnings \$332,727.83. Puget sound again comes third, the gross earnings of its steam and unrigged fleet being \$1,241,116.20, the expenses \$988,892.50, and its net earnings \$252,223.70. The steamers of the Oregon or Astoria district and the southern Oregon or Coos bay district made a presentable showing of net earnings, these being \$45,229.11 on gross earnings of \$212,478.11 for Oregon and \$14,093.97 on \$56,499.33 for southern Oregon. The steamers of Wilmington and Humboldt or Eureka districts make a poor showing. Of \$64,406.14 of gross earnings the expenses of running the Wilmington steamers amounted to \$63,576.84, leaving net earnings of only \$829,30; and while the gross earnings of the Humboldt steamers amounted to \$102,488.21, the expenses amounted to \$87,232.30, leaving net earnings of only \$15,255.91. The steamers of the San Diego and Yaquina districts ran even less profitably, the account of San Diego showing gross earnings of \$42,507.47, with expenses of \$45,985.04, leaving a deficit of \$3,477.57; and the account of Yaquina showing earnings amounting to \$119,227.63, expenses to \$128,260.54, leaving a deficit of \$9,032.91.

In the financial account of the sailing vessels a steady rate of profit is maintained. The gross earnings were \$7,391,093.99, the expenses \$5,828,116.53, leaving net earnings of \$1,562,977.46, or but very little less than the

net earnings in the \$13,237,222.29 gross earnings of the steamers. The figures of the different districts need not be quoted, except in the cases of Willamette and Puget sound. In the returns of the steamer fleet Willamette easily led, but in the figures of the sailing fleet the positions are reversed. The gross earnings of the Puget sound sailing vessels were \$973,615.03, while those of Willamette were but \$55,795.31, and the net earnings of Puget sound sailing vessels were \$159,638.91, while those of the Willamette sailing vessels were but \$18,251.42.

The classes or occupations for which the account of earnings and expenses has been made up are passenger and freight vessels, ferryboats, fishing vessels, harbor tugs, and pilot boats. Their financial account is given in detail in Tables 16 to 23, inclusive, entitled "General operations by classes". The earnings and expenses of the five classes will be found in the accompanying summary. The gross earnings and the expenses of pilot boats are equal, since the pilots do not report their professional earnings. The boats are used simply to carry the pilots to vessels and the earnings of the boats as such are the expenses of maintaining crew and equipment. The gain or loss is that of pilotage, not that of running the boats.

TABLE K.—SUMMARY SHOWING THE TOTAL EARNINGS AND EXPENSES OF THE OPERATING FLEET OF THE PACIFIC COAST.

CLASSES OF OCCUPATIONS.	Gross earnings.	Expenses.	Net earnings.
Total	\$20, 628, 316. 28	\$17, 274, 809. 30	\$3, 353, 506, 98
Passenger and freight	18, 112, 955. 63	14, 898, 141. 32	3, 214, 814. 31
Ferryboats	994, 475. 95	964, 904. 32	29, 571. 63
Fishing vessels	719, 872. 25	697, 836. 45	22, 035. 80
Harbor tugs	765, 305. 72	678, 220, 48	87, 085. 24
Pilot boats	35, 706, 73	35, 706, 73	

In Table 12 the \$14,898,141.32 of expenses which were reported for the 1,001 vessels engaged in traffic operations exclusive of ferryboats are reduced to the principal items making up the sum. These items are port charges, wages, provisions, current repairs, fuel (for the steamers), commissions, insurance, taxes, and office expenses, together with two entries for what other running and shore expenses may not have been included in the list of items just quoted. These items of expenses are distributed among the steamers and sailing vessels for each district of registration with totals for the states and coast. The expenses of the unrigged craft are included in the accounts of the steamers. By far the largest item of expenses was that of wages, the figures being \$5,212,639.20, of which amount \$2,924,205.19 were paid on board the steamers and \$2,288,434.01 on board the sailing vessels. Of the total wages San Francisco paid \$1,655,683.25 to steamer hands and \$1,904,194.72 to the crews of the sailing vessels, while the Willamette or Portland shipowners paid out \$694,578.16 to the officers and men of the combined fleet, Puget sound's wage list for the steamers and sailing vessels being \$683,069.31.

The next largest item of expense was that of fuel, the cost of which amounted to \$2,094,523.42. Provisions cost \$1,507,183.73, of which \$832,191.57 were expended on steamers, and \$674,992.16 on sailing vessels; current repairs cost \$1.098,232.29, the steamers' portion of that expense being \$613,703.33 and the sailing vessels' part being \$484,528.96. The cost of insuring the steamers was \$384,795.87 and the sailing vessels \$158,142.14. Port charges of the coast freighting fleet amounted to \$292,085.09, commissions to \$175,080.30, and taxes to \$125,655.76.

EMPLOYÉS AND WAGES.

Table 13 treats in detail of the monthly wages of all classes of employés on vessels engaged in the transportation of passengers and freight on the Pacific coast in the year 1889, exclusive of ferryboats. Of these employés the steamer list (which contains the account of the crews of the unrigged craft) includes captains, first mates, second mates, third mates, boatswains, clerks, pursers, surgeons, first engineers, second engineers, third engineers, firemen, coal passers, wheelmen, pilots, lookouts, watchmen, cooks, bakers, cooks' assistants, pantrymen, butchers, seamen, deck hands, porters, oilers, water tenders, stewards, storekeepers, waiters, boys, chambermaids, stewardesses, and carpenters; while the sailing vessel list includes captains, first mates, second mates, clerks, wheelmen, pilots lookouts, watchmen, cooks, cooks' assistants, seamen, stewards, boys, and carpenters. The number of each class of employés for steamers and sailing vessels is given by districts for the coast and in a comprehensive total. From this latter have been worked out the accompanying summaries which show the aggregate and average monthly payments made to each class.

TABLE L.—SUMMARY SHOWING THE AGGREGATE AND AVERAGE MONTHLY WAGES PAID TO EACH GRADE C EMPLOYES ON ALL VESSELS ENGAGED IN PASSENGER AND FREIGHT TRAFFIC ON THE PACIFIC COAST FOR ON MONTH OF THE YEAR 1889, EXCLUSIVE OF FERRYBOATS.

employés.	Number employed.	Aggregate wages for one month.	Average monthly wages.
Total	10, 396	\$521, 502. 86	\$ 50. 16
Captains	1,001	95, 175. 97	95. 08
First mates	685	39, 573. 77.	57. <i>7</i> 7
Second mates, third mates, and boatswains	432	20, 756. 16	48. 05
Clerks and pursers	189	12, 652. 50	66. 94
Surgeons	2	110.00	55. 00
First engineers	353	35, 798, 54	101.41
Second and third engineers	251	18, 650. 00	74.30
Firemen and coal passers	657	29, 847. 26	45. 43
Wheelmen and pilots	134	9, 509. 17	70.98
Lookouts	24	1, 039. 50	43. 31
Watchmen	160	6, 702. 73	41.89
Cooks and bakers	726	35, 339, 45	48.68
Cooks' assistants, pantrymen, and butchers	393	10, 952. 28	27. 87
Seamen	3, 331	127, 817. 33	38. 37
Deck hands and porters	939	38, 344. 25	40. 84
Oilers and water tenders	172	8, 053. 37	46. 82
Stewards and storekeepers	192	9, 440, 00	49. 17
Waiters	455	11, 612. 58	25. 52
Boys	163	3, 858. 00	23. 67
Chambermaids and stewardesses	18	445.00	24.72
Carpenters	119	5, 825. 00	48.95

TABLE M.—SUMMARY SHOWING THE AGGREGATE AND AVERAGE MONTHLY WAGES PAID TO EACH GRADE O. EMPLOYÉS ON ALL STEAMERS ENGAGED IN PASSENGER AND FREIGHT TRAFFIC ON THE PACIFIC COAST FOR ON MONTH OF THE YEAR 1889, EXCLUSIVE OF FERRYBOATS.

employés.	Number employed.	Aggregate wages for one month.	Average monthly wages.
Total	5, 825	\$311, 545. 22	\$53.48
Captains	354	41, 271, 46	116. 59
First mates	286	18, 783. 87	65, 68
Second mates, third mates, and boatswains	138	7, 556. 16	54. 75
Clerks and pursers	188	12, 552, 50	66. 77
Surgeons	2	110.00	55. 00
First engineers	353	35, 798. 54	101.41
Second and third engineers	251	18, 650. 00	74. 30
Firemen and coal passers		29, 847. 26	45. 4 3
Wheelmen and pilots	128	9, 204. 17	71.91
Lookouts	19	844.50	44. 45
Watchmen	153	6, 407. 73	41.88
Cooks and bakers	296	14, 544. 45	· 49. 14
Cooks' assistants, pantrymen, and butchers	267	8, 372. 28	31. 36
Seamen	800	35, 090. 10	43.86
Deck hands and porters	939	38, 344. 25	40. 84
Oilers and water tenders	172	8, 053. 37	46. 82
Stewards and storekeepers	177	8, 870. 00	50.11
Waiters	455	11, 6 12. 58	25. 52
Воув	140	3, 517. 00	25. 12
Chambermaids and stewardesses	18 ,	445.00	24.72
Carpenters	32	1, 670. 00	52. 19

TABLE N.—SUMMARY SHOWING THE AGGREGATE AND AVERAGE MONTHLY WAGES PAID TO EACH GRADE OF EMPLOYES ON ALL SAILING VESSELS ENGAGED IN PASSENGER AND FREIGHT TRAFFIC ON THE PACIFIC COAST FOR ONE MONTH OF THE YEAR 1889.

employés.	Number employed.	Aggregate wages for one month.	Average monthly wages.
Total	4, 571	\$209, 957. 64	\$45.98
Captains	647	53,904.51	83. 31
First mates	399	20, 789. 90	52. 11
Second mates, third mates, and boatswains	294	13, 200. 00	44. 90
Clerks	1	100.00	100.00
Wheelmen and pilots	6	305. 00	50. 83
Lookouts	5	195.00	39.00
Watchmen	7	295.00	42. 14
Cooks	430	20, 795, 00	48, 36
Cooks' assistants	126	2, 580. 00	20.48
Seamen	2, 531	92, 727. 23	36, 64
Stewards	15	570. 00	38.00
Boys	23	841.00	14.83
Carpenters		4, 155. 00	47. 76

AVERAGES AND AGGREGATE WAGES.

So far the subject of employés, their number and wages, has only been considered in connection with the freight and passenger carrying vessels, exclusive of ferryboats, and for an illustrative month. In the eight tables numbered from 16 to 23, inclusive, treating of the general operations by classes, not only are the details of equipment and traffic operations given of all the different classes of vessels, but there is also given for each class such details of wages and employés as the number of common seamen employed in each district and state, the average wages paid to common seamen, the number of men of all grades making up the ordinary crews, the total number of men employed, and the total amount of money paid out as wages to officers and crews during the year. Gathering the facts presented in these tables, they are shown in the following summary:

TABLE O.—SUMMARY SHOWING TOTAL AND AVERAGE WAGES PAID ORDINARY CREWS AND TOTAL NUMBER OF MEN EMPLOYED ON ALL OPERATED VESSELS, OF EVERY CLASS OF OCCUPATION, ON THE PACIFIC COAST DURING THE YEAR 1889.

CLASSES OF OCCUPATIONS.	Common seamen employed.	Average wages per month paid common seamen.	Number making ordinary crews.	Total number of men employed at different times.	Total wages paid during year.
Total	4, 302	\$ 38, 3 6	12, 181	33, 656	\$6, 127, 450, 69
Passenger and freight	3, 381	38. 37	10, 396	30, 332	5, 212, 639. 20
Ferryboats	126	59.00	478	1, 150	395, 157. 00
Fishing vessels	790	34. 97	866	1, 485	247, 028. 56
Harbor tugs	25	42.59	874	573	247, 630, 49
Pilot boats	14	33.77	31	71	16, 310. 00
Yachts and pleasure boats	16	36. 68	36	45	8, 6 85. 44

In connection with the preceding summary two or three items are to be noted. In the first place, the "number of men employed" does not stand for the number of men who received a year's employment during 1889, but indicates the number of men to whom whole or partial employment was given during that year; that is, supposing the ordinary crew of wessel was 6 men, and 14 men were shipped during the year, then the 14 men are set down as having found emplowent. In the column entitled "ordinary crews" there is given the total number of men required to work and officer the 1,230 operating vessels (exclusive of unrigged, as their crews are included in those of the operating vessels) reported on for the different ports. In the next place, the entries in the column of "wages paid" represent the total wages paid during the year at the average rate of wages to the officers and men making up the ordinary crews for such time as they were employed; that is, supposing the vessel's ordinary crew included 16 seamen and the wages paid by the owner of that vessel was \$20 a month per man and the men were employed 10 months, then the amount set down would be \$3,200.

In a great number of cases the captain or owner made the return that the vessels were run on shares, and that consequently he could not give any account of wages paid. In such cases it was insisted that the captain or owner should reckon as "wages paid" the amount which he would have had to pay to captains

or men had such been employed, and then to enter that amount up for the number of days during which the vessel was in service. The same plan was adopted in the case of the numerous San Francisco bay schooners, where the captain and deck hands were paid out of what is called the "stock"; that is, the gross earnings of the vessel, or where the fashion of the "lay" is followed, or when the captain was paid a percentage of earnings; so that by thus obtaining a uniform style of report the \$6,127,450.69 can be accepted as the amount actually paid out or which would have been paid to the persons making up the crew list of the 1,230 vessels reported on, figuring on the basis of the average rate of wages paid in Pacific coast ports.

NATIONALITY OF EMPLOYÉS.

The endeavor to secure a report on the nationality of the employés was only partially successful. No data are at hand from which to say whether the number of native born citizens of the United States who follow the sea is increasing or not on the Pacific coast, but the opinion of a few intelligent shipowners who were approached on the subject was that such a tendency did exist. The returns themselves show, at any rate, that with very few exceptions the masters of American vessels of large burden were American born. The great bulk of the "ordinary seamen" hailed from the Baltic districts and the north of Europe, which to the ship's master was known as Scandinavia, and whether a man was a Finn or a Hollander he was classed as a Scandinavian. Of those returned as coming from Great Britain and Ireland the majority were Welsh or Irish. The number of Chinese sailors was never large on the Pacific coast, and the 286 reported were either crews of foreign going steamers or cooks of big vessels. The term "other countries" is an all-embracing one, as may be gathered from the returns of two sample vessels. One, a lumber vessel, carried a crew of 18, including men and officers, although 78 were taken into partial employment during the year, and of this latter number Scotland furnished 1, the United States 19, Germany 1, England 1, Russia and Finland 16, Italy 2, China 6, Portugal 2, Norway 15, Sweden 15; while the second, a whaler, had a crew consisting of Americans, English, Greeks, Mexicans, Scandinavians, Indians, and Portuguese. Such information as could be secured on this subject is set down in the following summary:

TABLE P.—SUMMARY SHOWING THE PRINCIPAL NATIONALITIES OF OFFICERS AND MEN EMPLOYED ON OPERATING VESSELS REGISTERED IN PACIFIC COAST PORTS IN THE YEAR 1889.

	STEAMERS, SAILING VESSELS, AND UNRIGGED CRAFT.					•
districts.	Total num- ber of men employed at different times.	United States.	Scandina- via.	Great Britain and Ireland.	China.	Other countries
Total for coast	33, 656	5, 074	12, 309	1, 163	286	14,824
California	25, 139	2, 199	10, 167	575	60	12, 138
San Diego	106	60	28	1		17
Wilmington	167	63	39	27	2	36
San Francisco	24, 545	2. 029	10, 019	524	58	11, 915
Humboldt	321	47	81	23	••••	170
Oregon	4, 497	1, 181	631	289	144	2, 253
Southern Oregon	76	50	15	4	• 1	6
Yaquina	318	68	22	2	12	214
Oregon	604	277	54	16	6	251
Willamette	3, 499	786	540	266	125	1, 782
Washington Puget sound	4, 020	1, 694	1,511	300	82	433

FUEL ACCOUNT.

An itemization has been made of the fuel account in Table 15, wherein are set down the amounts of coal and wood burned by the passenger and freight steamers, ferryboats, harbor tugs, and steam yachts during the operating year of 1889, together with the cost of the fuel. From this table it will be seen that the total cost of the fuel was \$2,467,882.17. Of this sum the coal, which amounted to 371,977 tons, cost \$2,117,032.65; while the wood, of which 163,669 cords were burned, cost \$350,849.52, making the average price of the coal \$5.69 per ton and the average price of wood \$2.14 per cord. The summary on the following page gives the quantities of fuel consumed.

TABLE Q.—SUMMARY SHOWING THE QUANTITIES OF COAL AND WOOD BURNED BY PASSENGER AND FREIGHT STEAMERS, FERRYBOATS, HARBOR TUGS, AND STEAM YACHTS REGISTERED IN PACIFIC COAST PORTS FOR THE YEAR 1889.

DISTRICTS.	Coal. (Tons.)	Wood. (Cords.)
Total for coast	371, 977	163, 669
California	291, 980	14, 299
San Diego	1, 842	
Wilmington	1, 878	. 2
San Francisco	286, 625	10, 955
Humboldt	1, 635	3,342
Oregon	54, 743	95, 643
Southern Oregon	3	3, 496
Yaquina	2, 945	2, 559
Oregon	79	14, 896
Willamette	51,716	74, 692
Washington, Puget sound	25, 254	53, 727

GENERAL OPERATIONS.

In the eight tables, 16 to 23, inclusive, the important figures given in the various presentations of equipment, traffic, and financial data are segregated and given for each class of vessel according to its occupation. These tables are drawn out as nearly as possible on a uniform plan. One or two entries, however, need explanation, even at the risk of some slight repetition.

Table 16, for instance, classes as freighters those vessels actually carrying freight, all towboats engaged in moving freight, and those craft owned by fishing concerns but used as freighters. The freight movement given under the head of unrigged in this table is that which was not reported on by any towing steamer, and is therefore entered up as a separate account.

The figures in Table 17, giving the freight and passenger traffic and the earnings and expenses of railroad ferryboats, were needed to make the report on the ferry industry a complete one.

Those vessels which were engaged in fishing, sealing, whaling, etc., but which only incidentally carried freight and whose earnings were from the sale of the catch, are the "fishing vessels", which are reported on separately in Table 18.

The harbor tugs reported on in Table 19 are those employed in the towing of vessels already reported on, and in all general harbor operations (except that of regularly towing barges and lumber), while the floating channel property referred to consists of dredgers, pile drivers, water boats, etc.

The yachts and pleasure boats given in Table 21 are, it should be remembered, those of over 5 tons burden, this minimum of tonnage excluding the small pleasure boats.

The number of vessels engaged in all of the occupations shown in Tables 16, 17, 18, 19, 20, and 21 does not, however, make up the total of those given in Table 1, "Equipment of fleets, all craft", although their income, expenditures, and traffic operations would make up the total of the returns given in Table 7, "Traffic in general", and Table 11, "Financial account in general". The difference in the equipment account is made up in Table 22, entitled "No traffic report". In this are given the number, tonnage, and value of all such craft as had no traffic report either because of being out of commission, from having been lost prior to or during 1889, because of being sold to foreign owners or being untraceable.

COMPARATIVE STATISTICS.

In considering the comparative statistics embraced in Tables 24 to 37, inclusive, it must be remembered that the figures are derived from two sources, according to the material at hand. The first five tables are made up from the data given in the transportation volume of the Tenth Census compared with such totals drawn from the report of the present census as could be comparatively presented. It may be repeated that the only branch of transportation on the Pacific coast fully reported on at the Tenth Census was that conducted by steamers, so that the tabulation of comparative census figures is necessarily restricted to the operations of this class of craft, though the number and tonnage of sailing vessels and unrigged craft were given.

The following summary was in the report on transportation for the Tenth Census:

PACIFIC COAST IN 1880.

There were 319 steamers owned on the Pacific coast in 1880. Of these steamers 178 were owned in California, 89 in Oregon, and 52 in Washington territory.

They measured 97,004.88 tons, and were valued at \$6,477,500, averaging 304.09 tons apiece, with an average value of \$20,306.

The capital invested in these steamers, exclusive of dock property, was \$8,854,490, and they gave employment to 3,008 men.

Gross earnings here were \$6,362,770, or 71.9 per cent on the capital invested. Excepting in the case of a few of the large and well established lines, money was lost in the competition with the railroads, and there has been a gradual withdrawal of lines for several years past in consequence of this competition. The amount paid for services here was \$1,953,451, or an average of \$649.41 per annum for each employé. The passenger movement was 6,604,712, of which 300,752 were regular passengers and 6,303,960 were ferry passengers. The freight movement was reported at 2,087,293 tons, of which 249,583 tons were carried by ocean steamers, 838,019 tons by inland passenger steamers, 240,298 tons by freight steamers, and 759,393 tons by ferry steamers.

The fuel consumed in this group, amounting to 146,407 tons of coal and 103,446 cords of wood, shows an average of 1.50 tons of coal

to the ton of measurement and 1.06 cords of wood.

Table 24 shows that in 1880 the Pacific coast fleet of steamers and unrigged craft numbered 534, with a tonnage of 125,090 and a value of \$6,620,980, and that in 1889 the coast fleet of steamers and unrigged craft numbered 1,020, had a tonnage of 233,859 and a value of \$16,351,800, an increase of 486 in number, 108,769 tons in tonnage, and \$9,730,820 in value. This increase, it will be seen, is quite as much in the steamers as it is in the unrigged craft, and is about equally distributed between the fleets of California, Oregon, and Washington. The classification of the steamer fleets for both years has been made in Table 25 by passenger and freight carrying boats, ferryboats, towing and harbor tugs, and miscellaneous craft, and from this classification it is seen that the passenger and freight carrying craft in 1880 numbered 224, with a tonnage of 70,392 and a value of \$4,414,900, while in 1889 the freighters numbered 354, had a tonnage of 129,490 and a value of \$12,660,755, an increase of 130 in number, 59,098 in tonnage, and \$8,245,855 in value.

EARNINGS AND WAGES, 1880 AND 1889.

The financial account of the steamers in 1880 was limited to the gross earnings and wages, and only these are given for both years in Table 26, and because the returns in 1880 were made only for states, while in 1889 they were made for districts, the comparison by localities is limited to states. All that can be shown, therefore, is that in 1880 the gross earnings on all the reporting steamers of the Pacific coast amounted to \$6,362,770, while in 1889 they had risen to \$13,237,222, a gross increase of \$6,874,452 and an average annual increase of \$763,828. The amount paid out in wages on steamers in the years under consideration is given in Table 26, because it is the only item of expense that can be compared, but a better consideration of it can be had from a study of Table 27. Here again, as in all other tables dealing with employés, the entry entitled "Total number of men making up the ordinary crews", is to be accepted as indicating the total number of men required to work all the reporting steamers and not the total number of men employed during the year. The number of men making up the complement of the steamer crews in 1880 was 3,008, while in 1889 the number was 6,818. To these there was paid out as wages during 1880 \$1,953,451, while in 1889 the total wages paid amounted to \$3,682,062. The average annual wages per man in 1880 was \$649.42 and \$540.05 in 1889, an average annual decrease of \$109.37. It may be added that the average annual decrease for the states making up this average annual decrease for the coast was \$22,35 in California, \$275.85 in Oregon, and \$240.94 in Washington.

FREIGHT AND PASSENGER TRAFFIC, 1880 AND 1889.

The same remarkable increase that was seen in the number, tonnage, and value of the steamers of 1889 over those of 1880 is shown in the increase of freight and passenger traffic. In 1880 the freight moved on the steamer was 2,087,293 tons, while in 1889 it was 8,173,504 tons, an increase of 6,086,211 tons, or 292 per cent. It will sobserved that in the freight movement of California the railroad ferry freight is also included in the 1889 figure and this is done because the ferry figures were also included in the 1880 report. The passenger traffic in 18 amounted to 6,604,712, while in 1889 there were 15,672,093 passengers.

FLEETS, 1880 AND 1889.

The comparative statistics found in Table 29 and the ten following tables have been gathered from the report of the Bureau of Navigation. Table 29 gives the number and tonnage of the steamers, sailing vessels, and barger egistered in each district of the Pacific coast for each year of the decade, the coast total for each year being give in a tabulated recapitulation. In this recapitulation it is shown that there has been a gradual but steady increasin the registered fleet of the coast during the ten years in question. In 1880, for instance, the registered sailing vessels numbered 752; in 1883 there were 812; in 1886 there were 829, and in 1889 there were 841. The tonnage

the registered sailing vessels in 1880 was 148,400; in 1882 it was 167,351; in 1887 it was 189,702, and in 1889 it was 248,430. In 1880 the registered steamers numbered 305 with a tonnage of 110,415; in 1884 the registered steamers numbered 384 with a tonnage of 146,562; in 1887, 426 steamers were registered with a tonnage of 160,140; and in 1889, 517 steamers were registered with a tonnage of 180,496. On the other hand, the registered barge fleet shows a very decided drop in 1883, the number in 1882 being 68 with a tonnage of 12,980, while in 1883 it fell to 8 with a tonnage of 5,973, and there continued until after 1888, the reason for this diminution being that after 1882 the registration of unrigged craft was no longer compulsory. This fact, too, explains the discrepancy between the total for the 1889 fleet as reported by the Commissioner of Navigation and that reported by the census. The Commissioner of Navigation gives 9 barges with a tonnage of 6,078 as the registered fleet of unrigged, while the census gives 489 unrigged with a tonnage of 63,356 as the registered and unregistered fleet of unrigged. Leaving out the unrigged, the Commissioner of Navigation reports on 1,358 registered steamers and sailing vessels, while the census reports on 1,353 vessels.

Tables 30 to 37, inclusive, show the average tonnage of all steamers, sailing vessels, and unrigged craft registered in each district for the decade, the annual average number of vessels registered, and the fluctuations from that annual average for each district and for each year. The following summary presents the average tonnage per vessel of each year's registered fleet at a glance:

TABLE R.—SUMMARY SHOWING THE NUMBER, TONNAGE, AND AVERAGE TONNAGE OF ALL VESSELS REGISTERED IN THE PACIFIC COAST DISTRICTS FOR THE TEN YEARS, 1880-1889.

YEARS.	Number.	Tonnage.	Average tonnage	
1880	1, 124	270, 801. 75	240. 93	
1881	1, 128	284, 425, 60	252.15	
1882	1, 166	300, 766. 83	257 . 95	
1883	1, 169	326, 944. 94	279. 68	
1884	1, 202	334, 188. 81	278. 03	
1885	1, 250	360, 110. 56	288, 09	
1886	1, 253	347, 059. 73	276. 98	
1887	1, 217	355, 814. 58	. 292, 37	
1888	1, 293	399, 173. 18	308. 72	
1889	1, 367	435, 004, 14	318. 22	

The gradual increase in the average tonnage of the registered fleet is shown in the preceding tables, and the two summaries following show whether this increase is on the part of steamers or of the sailing vessels:

TABLE S.—SUMMARY SHOWING THE NUMBER, TONNAGE, AND AVERAGE TONNAGE OF ALL STEAMERS REGISTERED IN THE PACIFIC COAST DISTRICTS FOR THE TEN YEARS, 1880-1889.

YEARS.	Number.	Tonnage.	Average tonnage.
1880	305	110, 414. 61	362. 02
1881	310	112, 434. 54	362. 69
1882	326	120, 431. 94	369. 43
1883	349	134, 435, 75	385. 20
1884	384	146, 561. 82	381.67
1885	402	153, 808. 04	382. 61
1886	416	156, 320. 30	375. 77
1887	426	160, 139. 75	375. 91
1888	459	168, 268, 58	366. 60
1889	517	180, 496, 04	349. 12

TABLE T.—SUMMARY SHOWING THE NUMBER, TONNAGE, AND AVERAGE TONNAGE OF ALL SAILING VESSELS REGISTERED IN THE PACIFIC COAST DISTRICTS FOR THE TEN YEARS, 1880-1889.

YEARS.	Number.	Tonnage.	Average tonnage.	
1880	. 752	148, 400. 41	197. 34	
1881	. 748	158, 940. 98	212. 49	
1882	. 772	167, 351, 44	216. 78	
1883	. 812	186, 536, 21	229. 72	
1884	818	187, 626, 99	229. 37	
1885	. 840	200, 329. 54	238. 49	
1886	. 829	184, 766, 45	222. 88	
1887	. 783	189, 701, 85	242. 28	
1888	. 826	224,931.62	272. 31	
1889	. 841	248, 429, 78	295. 40	

From these two summaries it is demonstrated that the increase of tonnage has been on the part of the sailing vessels. In 1880 the average tonnage of the registered fleet of steamers was 362.02, and while in 1883 it increased to 385.20, it decreased continuously from that time until in 1889 it was 349.12. On the other hand, while the average annual tonnage of the Pacific coast registered sailing vessels in 1880 was 197.34, it rose steadily from that to an average of 295.40 in 1889.

The numbers given in Tables S and T will not uniformly balance with the numbers for all vessels in Table R, since a separate statement for unrigged craft was not given for each year.

SHIPBUILDING RECORDS.

In Table 38 are set down the records of shipbuilding in the customs districts of the Pacific coast during the ten years 1880-1889. The following summary shows the number, tonnage, and average tonnage of the steamers and sailing vessels built during each year of the decade:

TABLE U.—SUMMARY SHOWING THE NUMBER, TONNAGE, AND AVERAGE TONNAGE OF THE STEAMERS AND SAILING VESSELS BUILT ON THE PACIFIC COAST IN THE TEN YEARS 1880-1889.

		STEAMERS.		SAILING VESSELS.				
YEARS.	Number. Tonnage.		Average tonnage.	Number.	Tonnage.	Average tonnage.		
Total for 10 years	369	68, 351, 18	185. 23	390	58, 353. 33	149. 62		
1880	25	7, 642. 61	305, 70	15	937. 44	62.50		
1881	21	3, 010. 41	143. 35	35	7, 382. 15	210. 92		
1882	28	6, 727. 35	240, 26	46	9, 043, 17	196, 59		
1883	34	4, 019. 17	118. 21	56	11, 547, 84	206. 21		
1884	42	5, 865. 99	139. 67	42	4, 746. 37	113. 01		
1885	38	8, 867, 37	233, 35	35	2, 133. 91	60. 97		
1886	23	3, 023, 31	131. 45	35	2, 890. 61	82. 59		
1887	32	3, 750. 45	117. 20	39	5, 355. 79	137, 33		
1888	55	12, 710, 22	231.09	48	9, 140. 87	190. 43		
1889	71	12, 734. 30	179. 36	39	5, 175. 18	132.70		

Table 39, which is the last of the tables of comparative statistics, deals only with the steamers built in each of the ten years, and considers them under the various methods of propulsion; that is, whether propeller, side-wheel, or stern-wheel. From this table it is seen that of 369 steamers with a tonnage of 68,351.18, 241 were propellers with a tonnage of 31,728.75, 37 were side-wheelers with a tonnage of 16,133.22, and 91 were stern-wheelers with a tonnage of 20,489.21. The records of annual construction of these three classes of steamers are plainly exhibited in the summary on the following page.

TABLE V.—SUMMARY SHOWING THE NUMBER AND TONNAGE OF PROPELLERS AND SIDE-WHEEL AND STERN-WHEEL STEAMERS BUILT ON THE PACIFIC COAST DURING THE TEN YEARS 1880-1889.

	METHODS OF PROPULSION.								
YEARS.	Pro	peller.	Side	-wheel.	Stern-wheel.				
	Number.	Tonnage.	Number.	Tonnage.	Number.	Tonnage.			
Total for 10 years	241	31, 728. 75	37	16, 133. 22	91	20, 489. 21			
1880	10	402. 48	9	5, 804. 35	6	1, 435. 78			
1881	10	887. 12	4	325. 06	7	1, 798. 23			
1882	15	3, 915. 90	3	253. 10	10	2, 558. 35			
1883	27	3, 097. 03	ii		7	922. 14			
1884	24	1, 428. 00	6	2, 583. 37	12	1, 854. 62			
1885	22	3, 219. 04	5	2, 998. 51	11	2, 649, 82			
1886	13	1, 145. 71			10	1, 877. 60			
1887	26	2, 720. 48	2	347, 62	4	682. 35			
1888	48	7, 749. 66	3	2, 427. 60	9	2, 532, 96			
1889	51	7, 163, 33	5	1, 393. 61	15	4, 177. 36			

CONGRESSIONAL APPROPRIATIONS.

In the last of the tables (Table 40) entitled "Congressional appropriations", it will be seen that the earliest appropriation made by the government for the improvement of the rivers and harbors of the Pacific coast was in 1852, when \$111,000 were set aside for the survey and improvement of San Diego river and harbor. Since that time nearly a hundred localities have been improved under congressional aid, the sums appropriated up to 1890 amounting to \$9,964,800. Of this amount \$2,315,000 were appropriated up to and including 1879, \$5,527,200 were included in the decade marked by 1880–1889, the remaining \$2,122,600 having been appropriated by the act of September 19, 1890.

Of the total amount, \$111,500 were appropriated for Washington, of which amount \$78,500 were appropriated between 1880 and 1889 and the remaining \$33,000 in 1890.

The appropriations for Oregon amounted to \$5,765,050, of which amount \$1,107,000 were appropriated up to and including 1879; \$3,164,950 in the ten years 1880-1889, and \$1,493,100 by the act of September 19, 1890.

The appropriations for California amounted to \$4,038,250, of which amount \$1,158,000 were appropriated up to and including 1879; \$2,283,750 were appropriated from 1880 to 1889, inclusive, and \$596,500 by the act of September 19, 1890.

Between the sum of these amounts, however, and the \$9,964,800 given as the total appropriations for the Pacific coast there is a difference of \$50,000, that sum being a general appropriation for which there was no indication of special locality, but which was made for such comprehensive purposes as general expenses and surveys.

Charged to the states the total appropriations are set down in the following summary:

TABLE W.—SUMMARY SHOWING THE AMOUNTS APPROPRIATED BY CONGRESS FOR THE SURVEY, IMPROVEMENT, AND MAINTENANCE OF THE HARBORS AND RIVERS OF THE PACIFIC COAST, GIVEN BY PERIODS AND ALLOTTED TO THE RESPECTIVE STATES FOR WHICH THE APPROPRIATIONS WERE MADE.

STATES.	Date of earliest appropriations.	Total appro- priations up to date.	Appropriations up to and including 1879.	Appropriations from 1880–1889, inclusive.	Appropriations by act of Con- gress Septem- ber 19, 1890.
Total		\$9, 964, 800	\$2 , 315, 000	\$5 . 527, 20 0	\$2, 122, 600
Washington	1880	111, 500		78, 500	33, 000
Oregon	1866	5, 765, 050	1, 107, 000	3, 16 <u>4</u> , 950	1, 493, 100
California	1852	4, 038, 250	1, 158, 000	2, 283, 750	596, 500
General expenses all states.	1866	50, 000	50, 000		

LANDINGS AND DISTANCES.

In accordance with the plan pursued when treating of the other branches of water transportation, this text may be brought to a close by giving a list of the principal trading points on the Pacific coast, with the distances from the principal ports.

DISTANCES BETWEEN OLYMPIA, WASHINGTON, AND OTHER POINTS ON THE PACIFIC COAST OF THE UNITED STATES, GOING SOUTH TO SAN DIEGO, CALIFORNIA.

c c	nles.	3	ILES.		MILES.
Tacoma, Washington	40	Bay Center, Washington	335	Crescent, California	637
Seattle, Washington	56	Oysterville, Washington	340	Arcata, California	713
Skokomish, Washington	134	Ilwaco, Washington	351	Eureka, California	708
Freeport, Washington	54	Cape Disappointment, Washington	346	Cape Mendocino, California	724
Dwamish, Washington	60	Knappton, Washington	360	Shelter Cove, California	756
Port Madison, Washington	60	Cathlamet, Washington	383	Westport, California	783
Snohomish, Washington	96	Kalama, Washington	416	Mendocino, California	805
Port Townsend, Washington	94	Vancouver, Washington	452	Navarro, California	816
Utsaladdy, Washington	105	Cascades, Washington	484	Point Arena, California	832
Stillaguamish, Washington	110	Salem, Oregon	516	Tomales, California	897
Laconner, Washington	115	Oregon city, Oregon	464	San Francisco, California	945
Fidalgo, Washington	130	Portland, Oregon	456	Mare island, California	967
Mount Vernon, Washington	125	St. Helen, Oregon	428	Oakland, California	950
Whatcom, Washington	145	Clifton, Oregon	380	Santa Cruz, California	999
Friday harbor, Washington	130	Knappa, Oregon	366	Castroville, California	1, 010
New Dungeness, Washington	120	Astoria, Oregon	360	Monterey, California	1, 010
Port Angeles, Washington	135	Skipanon, Oregon	356	Point Sur, California	1,031
Pysht, Washington	170	Port Klatsop, Oregon	357	San Simeon, California	
Neah bay, Washington	195	Nehalem bay, Oregon	384	Cayucos, California	1, 116
Cape Flattery, Washington	209	Tillamook head, Oregon	367	Port Harford, California	1, 129
Quinault, Washington	276	Netarts bay, Oregon	406	Point Sal, California	1, 145
Port Grenville, Washington	278	Cape Lookout, Oregon	405	Santa Barbara, California	1, 223
Humptulips, Washington	313	Yaquina, Oregon	451	San Buenaventura, California	1, 253
Grays harbor, Washington	308	Oysterville, Oregon	454	Hueneme, California	1, 258
Hoquiam, Washington	317	Florence, Oregon	492	Santa Monica, California	1, 302
Montesano, Washington	335	Empire city, Oregon	535	Wilmington, California	1, 323
Chehalis, Washington	303	Coos city, Oregon	546	San Pedro, California	1, 320
Cosmopolis, Washington	324	Cape Blanco, Oregon	562	San Juan Capistrano, California	1, 356
Bay city, Washington	310	Port Orford, Oregon	573	Delmar, California	1, 393
Petersons point, Washington	308	Ellensburg, Oregon	594	San Diego, California	
Willapa, Washington	34 0	Chetco, Oregon	616		-

DISTANCES BETWEEN SAN FRANCISCO, CALIFORNIA, AND OTHER POINTS ON THE PACIFIC COAST OF THE UNITED STATES, GOING SOUTH TO SAN DIEGO, CALIFORNIA.

		•
MILES.	MILES.	MILES.
Mare island, California	Cayucos, California 204	Santa Monica, California 389
Oakland, California 5	Port Harford, California 216	Wilmington, California 410
Santa Cruz, California 80	Point Sal, California	San Pedro, California 407
Castroville, California 97	Santa Barbara, California 310	San Juan Capistrano, California 443
Monterey, California 97	San Buenaventura, California 340	Delmar, California 481
Point Sur, California 119	Hueneme, California	San Diego, California 508
San Simeon California 184	i i	

DISTANCES BETWEEN SAN FRANCISCO, CALIFORNIA, AND OTHER POINTS ON THE PACIFIC COAST OF THE UNITED STATES, GOING NORTH TO OLYMPIA, WASHINGTON.

•		
MILES.	MILES.	MILES.
Drake's bay, California 25	Port Klatsop, Oregon 589	Grays harbor, Washington 643
Tomales, California 54	Skipanou, Oregon	Humptulips, Washington 648
Point Arena, California	Astoria, Oregon	Port Grenville, Washington 667
Navarro, California	Knappa, Oregon 619	Quinault, Washington 670
Mendocino, California	Clifton, Oregon	Cape Flattery, Washington 745
Westport, California	St. Helen, Oregon 681	Neah bay, Washington 750
Shelter Cove, California 189	Portland, Oregon 709	Pysht, Washington 775
Cape Mendocino, California 221	Oregon city, Oregon 711	Port Angeles, Washington 810
Eureka or Humboldt bay, California 248	Salem, Oregon	New Dungeness, Washington 825
Arcata, California		Friday harbor, Washington 845
Trinidad bay, California 264	Vancouver, Washington 705	Whatcom, Washington 870
Crescent, California	Kalama, Washington	Mount Vernon, Washington 865
Chetco, Oregon	Cathlamet, Washington	Fidalgo, Washington 855
Ellensburg, Oregon	Knappton, Washington 613	Laconner, Washington 855
Port Orford, Oregon 373	Cape Disappointment, Washington 599	Stillaguamish, Washington
	Ilwaco, Washington	Utsaladdy, Washington 857
Coos city, Oregon 427	Oysterville, Washington 637	Port Townsend, Washington 845
Empire city, Oregon 416	Bay Center, Washington 632	Snohomish, Washington
	Willapa, Washington	Port Madison, Washington 880
Oysterville, Oregon	Petersons point, Washington 643	Dwamish, Washington 895
Yaquina, Oregon 508	Bay city, Washington 645	Freeport, Washington
Cape Lookout, Oregon 540	Cosmopolis, Washington 659	Skokomish, Washington 905
Netarts bay, Oregon 545	Chehalis, Washington	Seattle, Washington 890
Tillamook head, Oregon 578	Montesano, Washington 670	Tacoma, Washington 915
Nehalem bay, Oregon 562	Hoquiam, Washington	
Draming Divining Donat AND OD	ECON AND OTHER DOINGS ON THE DA	OTELO COACE OF MILE LINEAR SECURIOR

DISTANCES BETWEEN PORTLAND, OREGON, AND OTHER POINTS ON THE PACIFIC COAST OF THE UNITED STATES, GOING NORTH TO OLYMPIA, WASHINGTON.

DISTANCES BETWEEN PORTLAND, OREGON, AND OTHER POINTS ON THE PACIFIC COAST OF THE UNITED STATES, GOING SOUTH TO SAN DIEGO, CALIFORNIA.

MILES.	MILES.	MILES.
St. Helen, Oregon	Ellensburg, Oregon 357	Castroville, California 774
Clifton, Oregon 76	Chetco, Oregon 379	Monterey, California 774
Knappa, Oregon 82	Crescent, California 400	Point Sur, California 795
Astoria, Oregon 96	Arcata, California 476	San Simeon, California 860
Skipanon, Oregon 100	Eureka, California 471	Cayucos, California 880
Port Klatsop, Oregon 120	Cape Mendocino, California 487	Port Harford, California893
Nehalem bay, Oregon 147	Shelter Cove, California 519	Point Sal, California 909
Tillamook head, Oregon 130	Westport, California 546	Santa Barbara, California 1, 087
Netarts bay, Oregon 163	Mendocino, California 568	San Buenaventura, California 1, 117
Cape Lookout, Oregon 168	Navarro, California 579	Hueneme, California
Yaquina, Oregon	Point Arena, California 595	Santa Monica, California
Oysterville, Oregon 217	Tomales, California 660	Wilmington, California
Florence, Oregon	San Francisco, California 709	San Pedro, California
Empire city, Oregon 298	Mare island, California	San Juan Capistrano, California 1,220
Coos city, Oregon 309		Delmar, California
Cape Blanco, Oregon 325	Santa Cruz, California 763	San Diego, California
Port Orford, Oregon 336		

EQUIPMENT, OCCUPATION, AND CONSTRUCTION.

TABLE 1.—EQUIPMENT OF FLEETS—NUMBER, TONNAGE, AND VALUATION OF ALL STEAMERS, SAILING VESSELS, AND UNRIGGED CRAFT OF OVER FIVE TONS BURDEN REGISTERED OR OWNED IN THE CUSTOMS DISTRICTS OF THE PACIFIC COAST CREDITED TO THE RESPECTIVE DISTRICTS, WITH TOTALS FOR EACH STATE.

	TOTAL OF ALL CRAFT.			STEAMERS.			SAILING VESSELS.			UNRIGGED CRAFT.		
CUSTOMS DISTRICTS.	Num- ber.	Gross tonnage.	Valuation.	Num- ber.	Gross tonnage.	Valuation.	Num- ber.	Gross tonnage.	Valuation.	Num- ber.	Gross tonnage.	Valua- tion.
Total	1, 842	441, 939	\$23, 067, 370	531	170, 503	\$15, 526, 455	822	208, 080	\$6 , 715. 570	489	63, 356	\$825, 34 5
California	1, 177	304, 886	16, 148, 080	251	106, 667	9, 792, 905	697	162, 946	5, 753, 975	229	35, 273	601, 200
San Diego	57	3, 227	112, 450	8	800	62, 500	21	461	36, 975	28	1,966	12, 97
Wilmington		5, 562	287, 900	10	933	188, 500	13	694	37, 400	33	3, 935	62,00
San Francisco	1,018	289, 750	15, 400, 205	223	104, 149	9, 459, 405	649	138, 519	5, 434, 100	146	27, 082	506, 70
Humboldt	46	6, 347	347 , 52 5	10	785	82 500	14	3, 272	245, 500	22	2, 290	19, 52
Oregon	366	68, 963	4, 733, 365	165	50, 628	4, 492, 200	43	2, 776	97, 065	158	15, 559	144, 10
Southern Oregon	109	3,887	99, 290	15	771	70, 600	1	90	8, 000	93	3, 026	20, 60
Yaquina	16	2, 321	287, 600	13	2. 281	287, 400				3	40	20
Oregon	105	5, 353	347, 990	41	3, 172	284, 100	36	690	50, 080	28	1,491	13, 81
Willamette	136	57, 402	3, 998, 485	96	44, 404	3, 850, 100	6	1,996	38, 985	34	11,002	109, 40
Washington-Puget sound	299	68, 090	2, 185, 925	115	13, 208	1, 241, 350	82	42, 358	864, 530	102	12,524	80.04

EQUIPMENT, OCCUPATION, AND CONSTRUCTION—Continued.

TABLE 3.—OCCUPATION AND VALUATION BY CLASSES—NUMBER, TONNAGE, AND VALUATION OF ALL STEAMERS, SAILING VESSELS, AND UNRIGGED CRAFT OF OVER FIVE TONS BURDEN, DIVIDED INTO CLASSES INDICATIVE OF OCCUPATION.

									STEAD	mers.				
CUSTOMS DISTRICTS.		TOTAL	EQUIPMENT.	!		Passeng	er and freigh	ıt.		F	erry.		F	ish.
	Num- ber.	Gross tonnage.	Valuation.	Value per gross ton.	Num- ber.	Gross tonnage.	Valuation.	Value per gross ton.	Num- ber.	Gross tonnage.	Valua- tion.	Value per gross ton.	Num- ber.	Gross ton- nage.
Total	1, 842	441, 939	\$23, 067, 370	\$ 52. 20	354	129, 491	\$12,660,755	\$97.77	38	24, 630	\$979, 300	\$39.76	24	4, 343
California	1, 177	304, 886	16, 148, 080	52. 96	147	73. 833	7, 657, 705	103. 72	20	22, 551	816, 000	36. 18	14	3, 960
San Diego	57	3, 227	112, 450	34.85					3	488	31,500	64. 55		
Wilmington	56	5, 562	287, 900	51.76	5	756	149, 500	197.75						
San Francisco	1,018	289, 750	15, 400, 205	53. 15	136	72, 626	7, 479, 705	102. 99	17	22, 063	784, 500	35. 56	14	3, 960
Humboldt	46	6, 347	347, 525	54. 75	6	451	28, 500	63. 19						ļ
O reg on	366	68 , 96 3	4, 783, 365	68. 64	114	45, 016	4, 027, 200	89. 46	16	1,783	118, 300	66. 35	9	870
Southern Oregon	109	3, 887	99, 290	25. 54	12	651	48, 300	74. 19	1	20	1, 200	60.00		
Yaquina	16	2, 321	287, 600	123. 91	7	1, 077	125, 000	116.06	1	^j 16	900	56. 25	1	106
Oregon	105	5, 353	347, 990	65. 01	33	2, 897	247, 600	85. 47	 .		 		5	185
Willamette	136	57, 402	3, 998, 485	69. 66	62	40, 391	3, 606, 300	89. 28	14	1,747	116, 200	66, 51	3	79
Washington—Puget sound	299	68, 090	2, 185, 925	32 . 10	93	10, 642	975, 850	91. 70	2	296	45, 000	152, 03	. 1	18

) 					STEA	MERS—	continued	١.					
customs districts.	Fish—C	ontinued.		Ha	rbor tugs.			Ya	chts.			No tra	ffic report.	
	Valua- tion.	Value per gross ton.	Num- ber.	Gross tonnage.	Valuation.	Value per gross ton.	Num- ber.	Gross tonnage.	Valua- tion.	Value per gross ton.	Num- ber.	Gross tonnage.	Valua- tion.	Value per gross ton.
Total	\$411,500	\$94. 75	70	6, 109	\$1, 120, 800	\$183.47	3	63	\$6, 500	\$103.17	42	5, 867	\$347, 600	\$59. 25
California	341, 000	86. 11.	52	4, 279	833, 500	194. 79	1	18	2, 500	138, 89	17	2, 026	142, 200	70. 19
San Diego			4	294	28, 500	96. 94	1	18	2, 500	138. 89				
Wilmington		!	1	89	22, 000	247. 19					4	88	17, 000	193. 18
San Francisco	341,000	86.11	44	3, 626	732, 000	201.88	 	!	1		12	1,874	122, 200	65. 21
Humboldt			3	270	51,000	188. 89		ļ		,	1	64	3, 000	46.88
Oregon	69, 000	186. 49	9	484	108, 300	223. 76			ļ		17	2, 975	169, 400	56.94
Southern Oregon		'	2	100	21, 100	211.00								
Yaquina	25, 000	235. 85	2	126	44, 500	353. 17	II	.i			2	956	Ω2, 000	96. 23
Oregon	24, 000	129. 73	1 1	14	2, 000	142. 86	! !		:	l	2	76	10,500	138. 16
Willamette	20, 000	253. 16	4	244	40, 700	166. 80					13	1, 943	66, 900	34. 43
Washington—Puget sound	1, 500	115. 38	9	1, 346	179, 000	132. 99	2	45	4, 000	88.89	8	866	36, 000	41. 57

EQUIPMENT, OCCUPATION, AND CONSTRUCTION—Continued.

TABLE 2.—OCCUPATION AND VALUATION BY CLASSES—Continued.

i						SAILING	VESSELS.					
CUSTOMS DISTRICTS.	_	Fr	eight.			1	ish.			Pilo	t boats.	
	Num- ber.	Gross tonnage.	Valuation.	Value per gross ton.	Num- ber.	Gross tonnage.	Valuation.	Value per gross ton.	Num- ber.	Gross tonnage.	Valuation.	Value per gros ton.
Total	647	194, 478	\$6, 112, 340	\$31.43	60	6, 372	\$280, 955	\$44.09	9	418	\$49,700	\$118.
California	577	150, 825	5, 236, 900	34. 72	42	5, 897	242, 525	41. 13	6	258	30, 000	116.
San Diego	. 7	222	20, 350	91. 67	2	31	2, 625	84.68	1	20	3, 000	150.
Wilmington	. 8	588	27, 400	46. 60	: 				. 1	8	2, 500	312.
San Francisco	549	146, 924	4, 948, 150	33.68	40	5, 866	239, 900	40.90	4	230	24, 500	106.
Humboldt	13	3, 091	241,000	77. 97								i
regon	18	2, 022	53, 385	26. 40	10	137	12, 730	92. 92	2	141	19, 000	; 134. '
Southern Oregon	1	90	8, 000	88. 89								
Yaquina		l									·	
Oregon	14	220	10, 350	47.05	10	137	12, 730	92. 92	2	141	19, 000	134.1
Willamette	3	1,712	35, 035	20.46			ļ		<u>.</u>	•••••••	••••••	····•
Washington—Puget sound	52	41, 631	822, 055	19. 75	8	338	25, 700	76.04	1	19	700	36.
			SAII achts.	ING VESSE	L8—conti						eight.	
CUSTOMS DISTRICTS.				Value				Value				Value
ĺ	Num- ber.	Gross tonnage.	Valuation.	per gross ton.	Num- ber.	Gross tonnage.	Valuation.	per gross ton.	Num- ber.	Gross tonnage.	Valuation.	per gross ton.
Total	25	612	\$69, 300	\$113.24	81	6, 200	\$ 203, 27 5	\$32.79	489	63, 356	\$825, 345	\$13. C
California	24	604	68, 800	113. 91	48	5, 362	175, 750	32. 78	229	35, 273	601, 200	17.00
San Diego	7	101	8, 500	84. 16	4	87	2,500	28.74	28	1, 966	12, 975	6. 60
Wilmington	4	98	7, 500	76, 53	[!]				33	3, 935	62, 000	15.76
San Francisco	13	405	52, 800	130. 37	43	5, 094	168, 750	33. 13	146	27, 082	506, 700	18.71
Humboldt	·	·			1	181	4, 500	24. 86	22	2, 290	19, 525	8.5
Pregon	! 	,		:	13	476	11, 950	25. 11	158	15, 559	144, 100	9. 2
Southern Oregon					. 				93	3, 026	20, 690	6. 6
Yaquina			٠	·					3 !	40	200	5. 4
Oregon				ļ	10	192	8,000	41. 67	28	1, 491	13, 810	9_
Willamette	·		: 	·	3	284	3, 950	13. 91	34	11,002	109, 400	9_

EQUIPMENT, OCCUPATION, AND CONSTRUCTION—Continued.

TABLE 3.—OWNERSHIP BY CLASSES—NUMBER, TONNAGE, AND VALUATION OF ALL STEAMERS AND SAILING VESSELS ALLOTTED RESPECTIVELY TO INDIVIDUAL, JOINT STOCK, AND CORPORATE OWNERSHIP, AND GROUPED FOR EACH CLASS OF OCCUPATION.

ALL STEAMERS AND SAILING VESSELS.

				NUMBER	AND TONN	AGE BY OW	ERSHIP.	•	VALUAT	ION BY OWNE	ERSHIP.
CUSTOMS DISTRICTS.	Total number.	Total tonnage.	Indi	vidual.	Joint	stock.	Cor	porate.	Individual.	Joint stock.	Cornerate
			Number.	Tonnage.	Number.	Tonnage.	Number.	Tonnage.	Indivadual.	Some stock.	Corporate.
Total steam and sail	1, 353	378, 583	991	200, 705	27	4, 002	332	173, 876	\$9,001,115	\$343, 500	\$12, 897, 410
Total steam	531 822	170, 503 208, 080	252 742	34, 114 166, 591	25 2	3, 368 634	254 78	133, 021 40, 855	3, 147, 650 5, 853, 465	1	12, 054, 305 843, 105

STEAMERS.

PASSENGER AND FREIGHT.

Total	354	129, 491	179	27, 140	18	2, 825	157	99, 526	2, 417, 850	246, 500	9, 996, 405
California	147	73, 833	57	13, 552	12	2, 510	78	57, 771	1, 302, 500	193, 000	6, 162, 205
Wilmington	5	756		;			5	756			149, 500
San Francisco	136	72, 626	53	13, 288	12	2, 510	71	56, 828	1, 283, 000	193, 000	6, 001, 705
Humboldt	6	451	4	264	'		2	187	17, 500		11,000
Oregon	114	45, 016	53	7. 537	5	236	56	37, 243	592, 700	33, 500	3, 401, 000
Southern Oregon	12	651	8	365	3	173	1	113	21, 800	22, 500	4, 000
Yaquina	7	1,077	7	1, 077	'!				125, 000	l .,,	
Oregon	33	2, 897	. 22	1,962	2 ,	63 H	9	872	167, 800	11,000	69, 000
Willamette	62	40, 391	16	4, 133	·		46	36, 258	278, 300		3, 328, 000
Washington—Puget sound	93	10, 642	69	6, 051	1	79	23	4. 512	522, 650	20,000	433, 200

FERRY.

Total	38	24, 630	7	202	2	216	29	24. 212	28, 600	13,000	937, 700
California	20	22, 551	·				20	22, 551			£16, 000
San Diego		488					3	488			31, 500
San Francisco	17	22, 063			¦	ļ	17	22, 063		•••••	784, 500
Эгедон	16	1. 783	6	179	2	216	8	1,388	23, 600	13, 000	81,700
Southern Oregon	1	20	1	20					1, 200		
Yaquina	1	16	1	16					900		
Willamette	14	1,747	4	143	2	216	8	1, 388	21, 500	13, 000	81, 700
Washington-Puget sound	2	296	1	23			1	273	5, 000	`	40, 000

FISH.

Total	24	4, 343	5	626	2	149	17	3, 568	45, 000	24, 000	842, 500
California—San Francisco	14	3, 960	1	516	1	91	12	3, 353	20,000	18, 000	303, 000
Oregon	9	370	4	110	1	58	4	202	25, 000	6, 000	88, 000
Yaquina	1	106					1	106			25, 000
Oregon	5	185	1	31	1	58	3	96	5, 000	6,000	13, 000
Willamette	3	79	3	79					20,000		
Washington-Puget sound	1	13	 				i' 1	13			1, 500

EQUIPMENT, OCCUPATION, AND CONSTRUCTION—Continued.

TABLE 3.—OWNERSHIP BY CLASSES—Continued.

STEAMERS—Continued.

HARBOR TUGS.

		i	1	NUMBEI	R AND TONN	AGE BY OW	NERSHIP.		VALUAT	ION BY OWN	RSHIP.
CUSTOMS DISTRICTS.	Total number.	Total tonnage.	Indi	vidual.	Joint	stock.	Corp	oorate.			
•			Number.	Tonnage.	Number.	Tonnage.	Number.	Tonnage.	Individual.	Joint stock.	Corporate
Total	70	6, 109	33	2, 189	3	178	34	3,742	\$440, 8 0 0	\$41,000	\$639, 00
California	52	4, 279	24	1, 739	2	55	26	2, 485	396, 000	16,000	421, 50
San Diego		294	2	29			2	265	8, 500		20, 00
Wilmington	1	89		, 		• • • • • • • • • • • • • • • • • • • •	1	89			22, 00
San Francisco	44	3, 626	19	1,440	2	55	23	2, 131	336, 500	16,000	379, 50
Humboldt	3	270	3	270				•••••	51, 000	1	•••••
)regon	9	484	6	174			3	310	30, 300	······································	78, 90
Southern Oregon	2	100	2	100					21, 100		
Yaquina	2	126	1	34		••••	1	. 92	4, 500		40,00
Oregon	1	14	1	14	[•••••	[2,000	1	••••
Willamette	4	244	2	26		•••••	2	218	2, 700		38.00
Washington—Puget sound	9	1, 346	3	276	1	123	5	947	14, 500	25, 000	139, 560
		1	ı	:	ACHTS.			i 1	1	1	
Total	3	63	2	45			1	18	4,000		2,500
California—San Diego	1	18					1	18			2, 500
Washington—Puget sound	2	45	2	45	ļ				4,000		
				NO TRAI	FFIC REP	ORT.					
Total	42	5, 867	26	3,912			16	1, 955	211, 400		136, 200
	17	2, 026	8	1, 401			9	625	43, 500		98, 700
alifornia			2	48			2	40	7, 500		9, 500
	1	. XX)	11	••••	7	585	83,000		89, 2010
Wilmington	12	88 1,874	5	1, 290	i			'	3,000	l	•••••
Wilmington	12		5 1	1, 299 64				•••••	0,000		
Wilmington	12	1,874					4	917	138, 400		31,0
Wilmington	12 1	1,874	i	64			4	917			31, 04 12, 04
Wilmington	12 1 17	1,874 64 2,975	13	2, 058			i		138, 400		
San Francisco Humboldt Tegon Yaquina	12 1 17 2	1,874 64 2,975 956	13	2, 058 883			i		138, 400		

SAILING VESSELS.

FREIGHT.

Total	647	194, 478	5 87	157, 048	1	594	59	36, 836	5, 369, 835	15, 000	787,
California	577	150, 825	544	141, 871	1	594	32	8, 360	4, 951, 900	15,000	270,
San Diego	7	222	5	80			2	142	5, 350		15,
Wilmington	8 :	588	8	588					27, 400		
San Francisco	549	146, 924	518	138, 112	1	594	30	8, 218	4, 678, 150	15,000	255, 0
Humboldt	18	3, 091	13	3, 091		•••••			241, 000		
Oregon	18	2, 022	18	2, 022		•••••			53, 385		
Southern Oregon	1	90	1	90					8. 000		
Oregon	14	220	14	220				. 	10, 350		
Willamette	8	1, 712	8	1, 712					35. 035		
Washington-Puget sound	52	41, 631	25	13, 1 5 5			27	28, 476	364, 550		457, 505

TRANSPORTATION ON THE PACIFIC COAST.

EQUIPMENT, OCCUPATION, AND CONSTRUCTION—Continued.

TABLE 3.—OWNERSHIP BY CLASSES—Continued.

SAILING VESSELS-Continued.

FISH.

					FISH.						
-				NUMBER	AND TONK	AGE BY OWN	ERSHIP.		VALUAT	ION BY OWN	RSHIP.
CUSTOMS DISTRICTN.	Total number.	Total tonnage.	Indi	vidual.	Joint	t stock.	Corp	porate.	Individual.	Joint stock	Corporate
			Number.	Tonnage.	Number.	Tonnage.	Number.	Tonnage.	Individual.	OIII SLOCK	Corporate
Total	60	6, 372	46	4, 084	1	40	13	2, 248	\$199, 555	\$4,000	\$ 77, 4 0
California	42	5, 897	30	3, 663			12	2, 234	166, 925		75, 60
San Francisco	2 40	31 5, 866	2 28	31 3, 632			12	2, 234	1		75, 60
Oregon—Oregon	10	137	10	137					12, 730	1	
Washington—Puget sound	8	338	6	284	1	40	1	14	19, 900	4, 000	1, 80
				PILO	T BOATS	.					
Total	9	418	8	354	 		1	64	39, 700		10,00
California	6	258	6	258					30, 000		
San Diego	1	20	1	20					3,000		
Wilmington	1 1	8	1	8	 	······	ļ		2, 500		
San Francisco	4	230	4	230					24, 500	! !	•••••
Oregon—Oregon	2	141	1	77	 	<u></u>	1	64	9,000	 	10, 00
Washington—Puget sound	1	19	1	19	 		 		700		
				Y.	ACHTS.						
Total	25	612	25	612					69, 300		!
California	24	604	24	604					68, 800		
San Diego	7	101	7	101					8, 500		
Wilmington	4	98	4	96					7,500	 	!.
San Francisco	13	405	13	405					52, 800		
Washington-Puget sound	1	8	1	8	<u> </u>				500	: 	
				NO TRA	FFIC RE	ORT.					
Total	81	6, 200	76	4, 493			5	1,707	175, 075		28. 20
lifornia	48	5, 362	43	3, 655			. 5	1,707	147, 550		28, 20
San Diego	4	87	4	87				,	2, 500		1
San Francisco	1	5, 094	38	3, 387	11		. 5	1, 707		·	
Humboldt	1	181	1	181		·			4,500		1
gon	. 13	476	13	476					11,950		! !
Oregon		192	II	1	II.				11	·	
Willamette	. 3	284	3	284		· ·····		·····	3, 950		· · · · · · · · · · · · · · · · · · ·
ashington—Puget sound	. 20	362	20	362					15, 575		
		••	••		••		**		4.5		•

EQUIPMENT, OCCUPATION, AND CONSTRUCTION—Continued.

TABLE 4.—OWNERSHIP BY LOCALITIES—NUMBER, TONNAGE, AND VALUATION OF ALL STEAMERS AND SAILING VESSELS ALLOTTED RESPECTIVELY TO INDIVIDUAL, JOINT STOCK, AND CORPORATE OWNERSHIP, AND GROUPED BY DISTRICTS.

ALL STEAMERS AND SAILING VESSELS.

:				NUMBER	R AND TONN	AGE BY OW:	NERSHIP.		VALUAT	ION BY OWN	RSHIP.
CLASSES AND CUSTOMS DISTRICTS.	lotal number.	Total tounage.	Indi	vidual.	Joint	stock.	Cor	porate.			
İ	ļ		Number.	Tonnage.	Number.	Tonnage.	Number.	Tonnage.	Individual. 	Joint stock.	. Corporate
Total steam and sail	1, 353	378, 583	994	200, 705	27	4,002	332	173, 876	\$9 , 001, 115	\$343,500	\$12, 897, 41
Total steam	531 822	170, 503 208, 080	252 742	34, 114 166, 591	25 2	3, 368 634	254 78	133, 021 40, 855	3, 147, 650 5, 853, 465	324, 500 19. 000	12, 054, 300 843, 100
· · · · · · · · · · · · · · · · · · ·			1	STI	EAMERS.		11			.· <u></u>	
Total for California	251	106, 667	90	17, 208	15	2, 656	146	86, 803	1, 762, 000	227,000	7, 803, 905
San Diego, California	8	800	2	29		=====		771	8, 500		54.000
Ferry	3	488			·	i	3	488			31,500
Harbor tugs	4 }	294	2	29			2	265	8, 500		20,000
Yachts	1	18	 !			 	1	18			2,560
Wilmington, California	10	933	2	48			8	885	7,500		181,000
Passenger and freight	5	756			i		5	736		i 	149, 580
Harbor tugs	1	89					1	. 89	 		22,000.
No traffic report	4	88	2	48		 	2	40	7, 500		9, 500
San Francisco, California	223	104, 149	78	16, 533	15	2, 656	130	84,960	1, 674, 500	227, 000	7, 557, 96
Passenger and freight	136	72, 626	53	13, 288	12	2, 510	71	56, 828	1, 285, 000	193, 000	6, 601, 705
Ferry	17	22, 063	·		}		17	22, 063			784, 500
Fish	!	3,960	1	516	1	91	12	3, 353	20,000	18,000	303,66 0
Harbor tugs No traffic report	144 [†]	3, 626 1, 874	19	1, 440 1, 289	2	55	23	2, 131 585	336, 500 33, 000	16,000	379,500 89,500
	10	785	8	598			2	187	71, 500		11,000
Humboldt, California			i	·				!			11,000
Passenger and freight Harbor tugs	3	451 270	' 4 - 3	264 270			2	187	17, 500 51, 000		71,44
No traffic report	1	64	: 1	64				······	3,000		
Total for Oregon	165	50, 628	82	10, 058	8	510	75	40, 060	810, 000	52, 500	3, 629, 780
Southern Oregon, Oregon	15	771	11	485	3	173	1	113	44, 100	22, 500	4,000
Passenger and freight	12	651	8	365	3	173	1	113	21, 800	22, 500	4,000
Ferry	1	20	1	20	ľ 			ļ	1, 200		
Harbor tugs	2	100	. 2	100					21, 100		!
Yaquina, Oregon	13	2, 281	10	2, 010		<u> </u>	3	271	210, 400		77, 0
Passenger and freight	7	1,077	7						125, 000		
Ferry	1	16	1	16	4	 			900		
Fish Harbor tugs	1 2	106 126	1	34		•••••	1	. 106	4 500	·	25. 40.
No traffic report		956	1		\$		1	73	4, 500 80, 000		12.
Oregon, Oregon	41 -	3, 172	26	2, 083	l: 3	121	12	968	185, 100	17, 000	82.
Passenger and freight	33	2, 897	22	1, 962	2	63	9	872	167, 600	11,000	60,
Fish	5	185	18	31	1	58	3	96	5, 000	6,000	13,
Harbor tugs	. 1	14	-	14	1			·	2,000		····
No traffic report	2	76	2	76				!!	10,500		
Willamette, Oregon	96	44, 404	35	5, 480	2	216	59	38, 708	370, 400	13,000	3. 466,
Passenger and freight	62	40, 391	16	4, 133			46	36, 258	278, 300		3, 328,
Ferry	14	1, 747	4	143	2	216	8	1, 388	21,500	13,000	81,
•											
Fish	3 4	79 244	3 2	79 26		• • • • • • • • • • • • • • • • • • • •	2	218	20, 000 2, 700		a

TRANSPORTATION ON THE PACIFIC COAST.

EQUIPMENT, OCCUPATION, AND CONSTRUCTION—Continued.

TABLE 4.—OWNERSHIP BY LOCALITIES—Continued.

STEAMERS-Continued

				NUMBE	R AND TON	NAGE BY OW	NERSHIP.		VALUAT	ION BY OWNE	RSHIP.
CLASSES AND CUSTOMS DISTRICTS.	Total number.	Total tonnage.	Indi	vidual.	Joint	stock.	Corp	porate.	To Mark and		
Proset sound Weskington			Number.	Tonnage.	Number.	Tonnage.	Number.	Tonnage.	Individual.	Joint stock.	Corporate.
Puget sound, Washington	115	13, 208	80	6, 848	2	202	33	6, 158	\$575,650	\$45,000	\$620, 700
Passenger and freight	93	10,642	69	6,051	1	79	23	4, 512	522, 650	20,000	433, 200
Ferry	2	296	1	23		*********	1	273	5,000		40,000
Fish	1	13					1	13			1,500
Harbor tugs	9	1,346	3	276	1	123	5	947	14, 500	25, 000	139, 500
Yachts	2	45	2	45					4,000		
No traffic report	8	866	5	453		*********	3	413	29, 500		6, 500

SAILING VESSELS.

373, 800	15,000	5,365,175	12, 301	49	594	1	150,051	647	162, 946	697	Total for California
15,00		21,975	142	2		,,,,,,,,,,	319	19	461	21	San Diego, California
15,000		5, 350	142	2			80	5	222	7	Freight
		2, 625			*********		31	2	31	2	Fish
		3,000					20	1	20	1	Pilot boats
		8,500					101	7	101	7	Yachts
		2, 500					87	4	87	4	No traffic report
******		37, 400					694	13	694	13	Wilmington, California
		27, 400					588	8	588	8	Freight
100 1 100 5 111		2,500					8	1	8	1	Pilot beats
		7,500			**********		98	4	98	4	Yachts
,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,		1,000							30	lj.	
358, 800	15, 000	5, 060, 300	12, 159	47	594	1	145, 766	601	158, 519	649	San Francisco, California
255,000	15,000	4, 678, 150	8, 218	30	594	1	138, 112	518	146, 924	549	Freight
75, 600		164, 300	2, 234	12			3, 632	28	5, 866	40	Fish
		24, 500					230	4	230	4	Pilot boats
		52, 800	***********				405	13	405	13	Yachta
28, 200		140,550	1,707	5			3, 387	38	5, 094	43	No traffic report
		245, 500					3, 272	14	3, 272	14	Humboldt, California
		241,000	20000000				3, 091	13	3, 091	13	Freight
		4,500	1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1				181	1	181	1	No traffic report
		4,500				75.7.7.					No traine report
10, 000		87, 065	64	1			2,712	42	2,776	43	Total for Oregon
											Southern Oregon, Oregon:
***********		8,000					90	1	90	1	Freight
10,000		40, 080	64	1			626	35	690	36	Dregon, Oregon
		10, 350				201122000	220	14	220	14	Freight
		12,730		********		100000000000000000000000000000000000000	137	10	137	10	Fish
1.00	emmm.		64	1			77	1	141	2	Pilot boats
		17					192	10	192	10	No traffic report
		38, 985					1,996	6	1, 996	6	Willamette, Oregon
	VETT- 10 - 1 - 1 - 1 - 1 - 1 - 1 - 1 - 1 - 1		(-in 11 e-a-1)					-		-	
7 7 1 2 1 1 1 1 1 1 1 1		35, 035		111111111111			1,712	3	1,712	3	Freight
**********		3, 950			**********		284	3	284	3	No traffic report
459, 305	4,000	401, 225	28, 490	28	40	1	13, 828	53	42, 358	82	Puget sound, Washington
457, 505		364, 550	28, 476	27			13, 155	25	41, 631	52	Freight
1,800	4,000	19,900	14	1	40	1	284	6	338	8	Pish
		700					19	1	19	1	Pilot boats
		500					8	1	8	1	Yachte
11 Y 3		15, 575					362	20	362	20	No traffic report

EQUIPMENT, OCCUPATION, AND CONSTRUCTION—Continued.

TABLE 5.—CONSTRUCTION BY CLASSES—NUMBER, TONNAGE, AND VALUATION OF ALL STEAMERS AND SAILING VESSELS ALLOTTED RESPECTIVELY TO THEIR MATERIALS OF CONSTRUCTION, AND GROUPED FOR EACH CLASS OF OCCUPATION.

ALL STEAMERS AND SAILING VESSELS.

			NUMBE	R AND TON	AGE BY	MATERIALS	OF CONS	ruction.	VALUATION	BY MATERIALS	OF CONST	RUCTION.
CUSTOMS DISTRICTS.	Total number.	Total tonnage.	w	ood.	Com	posite.	Iron a	nd steel.	m. 4-1	!	: ~	
			Num- ber.	Tonnage.	Num- ber.	Tonnage.	Num- ber.	Tonnage.	Total valuation.	Wood.	Compos- ite.	Iron and steel.
Total steam and sail	1, 353	378, 583	1, 326	328, 076	2	1, 298	25	49, 209	\$22, 242, 025	\$15, 373, 960	\$110,000	\$6, 758, 065
Total steam	531	170, 503	506	121, 202	1	1, 089	24	48, 212	15, 526, 455	8, 708, 390	100, 000	6, 712, 665
Total sail	822	208, 080	820	206, 874	1	209	1	997	6, 715, 570	6, 665, 570	10,000	40,000

STEAMERS.

PASSENGER AND FREIGHT.

Total	854	129, 491	336	82, 262	1	1, 089	17	46, 140	12, 660, 755	6, 162, 69 0	100, 000	6, 396, 00
California	147	73, 833	133	45, 982	1	1, 089	13	26, 762	7, 657, 705	3, 759, 640	100, 000	3, 796, 005
Wilmington	5	756	5	756					149, 500	149, 500		
San Francisco	136	72, 626	122	44, 775	1	1,089	. 18	26, 762	7, 479, 705	3, 581, 640	100,000	3, 798, 065
Humboldt	6	451	6	451			 		28, 500	28, 500		
Oregon	114	45, 016	111	25, 799			3	19, 217	4, 027, 200	1, 467, 200		2, 560, 600
Southern Oregon	12	651	12	651					48, 300	48. 300		
Yaquina	7	1,077	6	160			1	917	125, 000	30, 000		95, 600
Oregon	33	2, 897	33	2, 897			 		247, 600	247, 600		• • • • • • • • • • • • • • • • • • •
Willamette	62	40, 391	60	22, 091		•••••	2	18, 300	3, 606, 300	1, 141, 300		2, 465, 000
Washington-Puget sound	93	10, 642	92	10, 481			1	161	975, 850	935, 850	•	40, 000

FERRY.

Total	38	24, 630	37	24, 215	l		1	415	979, 300	939, 300	40,000
California	20	22, 551	20	22, 551					816, 000	816, 000	
San Diego	. 3	488 22, 063	3 17	488 22, 063	1		1		31, 500 784, 500	· · · · · · · · · · · · · · · · · · ·	
Oregon	16	1, 783	15	1, 368			1	415	118, 300	78, 30 0	40,000
Southern OregonYaquina	1	20 16	1	20 16					1, 200 900	1, 200 900	
Willamette	14 ,	1, 747	13	1,332			1	415	116, 200	76, 200	40.0
Washington—Puget sound	2	296	2	296	•••••	 			45, 000	45, 000	

FISH.

					11 1 11 1		
Total	24	4, 348	24			411, 500	411,500
California—San Francisco	14	3, 960	14	3, 960		341,000	341,000
Oregon	9	370	9	370		69, 000	69,000
Yaquina	1	106	1	106		25, 000	25, 000
Oregon	5	185	5	185		24,000	24, 000
Willamette	3	79	3	79		20, ∩00	20, 000
Washington-Puget sound	1	13	1	13		1, 500	1,500

EQUIPMENT, OCCUPATION, AND CONSTRUCTION—Continued.

TABLE 5.—CONSTRUCTION BY CLASSES—Continued.

STEAMERS-Continued.

				H	ARBOR	TUGS.						
			NUMBER	AND TONN	AGE BY	MATERIALS	of conf	STRUCTION.	VALUATION I	BY MATERIALS	OF CONST	RUCTION.
CUSTOMS DISTRICTS.	Total number	Total tonnage.	W	ood.	. Com	posite.	Iron a	and steel.	Total		Compos-	Iron and
			Num- ber.	Tonnage.	Num- ber.	Tonnage.	Num- ber.	Tonnage.	valuation.	Wood.	ite.	steel.
Total	. 70	6, 109	66	5, 540			4	569	\$1, 120, 800	\$985, 800		\$135, 000
(`alifornia	. 52	4, 279	50	3, 928			2	351	833, 500	736, 500		• 97,000
San Diego	. 4	294	4	294					28, 500	28, 500		
Wilmington	1	89	1	89					22, 000	22,000		
San Francisco	. 44	3, 626	42	3, 275			2	351	732, 000	635, 000		97, 000
Humboldt	. 3	270	3	270				.!	51.000	51,000		• • • • • • • • • • • • • • • • • • • •
Oregon	. 9	484	7	266			2	218	108, 300	70, 300		38, 000
Southern Oregon	. 2	100	2	100			j	1	21, 100	21, 100		 .
Yaquina	. 2	126	2	126	į	.[44, 500	44, 500		·
Oregon	. 1	14	1	14				.`	2, 000	2, 000	¦	
Willamette	. 4	244	2	26	ļ		2	218	40, 700	2, 700		38,000
Washington-Puget sound	9	1, 346	9	1, 346				.	179, 000	179, 000	!	<u></u>
					YACH	ITS.		•				
Total	. 3	63	3	63					6, 500	6, 500		
California—San Diego	. 1	18	1	18					2,500	2, 500		
Washington-Puget sound		45	2	45				.:	4, 000	4, 000		
		•		NO TI	RAFFIC	REPORT			·			
Total	42	5, 867	40	4, 779			2	1.088	347, 600	202, 600		145, 000
California	17	2, 026	16	1, 821			1	205	142, 200	77, 200		65, 000
Wilmington	4	88	4	. 88			!		17,000	17, 000		
San Francisco	12	1, 874	11	1,669		!	1	205	122, 200	57, 200	ļ	65, 000
Humboldt	1	64	1	64	 -		l		3, 000	3, 000		
regon	17	2, 975	16	2, 092			1	883	169, 400	89, 400	 	80, 000
Yaquina	2	956	1	73			1	883	92, 000	12,000		80, 000
Oregon	. 2	76	2	76		- 		i	10, 500	10, 500	ļ	
Willamette	. 13	1,943	13	1, 943				1	66, 900	66, 900	1	

SAILING VESSELS.

36, 000

866

FREIGHT.

Total	647	194, 478	645	193, 272	1	209	1	997	6, 112, 340	6, 062, 340	10,000	40, 000
Li Fornia	577	150, 825	575	149, 619	1	209	1	997	5, 236, 900	5, 186, 900	10,000	40,000
San Diego	7	222	7	222					20, 350	20, 350		• • • • • • • • • • • • • • • • • • • •
Wilmington	8	588	8	588	ļ. 				27, 400	27, 400		.
San Francisco	549	146, 924	547	145, 718	1	209	1	997	4, 948, 150	4, 898, 150	10,000	40, 000
Humboldt	13	3, 091	13	3, 091	ļ				241,000	241.000		· · · · · · · · · · · · · · · · · · ·
©gon	18	2, 022	18	2, 022	1				53, 385	53, 385		
Southern Oregon	1	90	1	90					8, 000	8, 000		
Oregon	14	220	14	220	 			. 	10, 350	10, 350		
Willamette	3	1, 712	3	1,712		• • • • • • • • • • • • • • • • • • • •			35, 035	35, 035		· • • • • • • • • • • • • • • • • • • •
Washington-Puget sound	52	41, 631	52	41, 631	į				822. 055	822, 055		· · · · · · · · · · · · · · · · · · ·

EQUIPMENT, OCCUPATION, AND CONSTRUCTION—Continued.

TABLE 5.—CONSTRUCTION BY CLASSES—Continued.

SAILING VESSELS—Continued.

FISH.

			NUMBE	R AND TON	NAGE BY	MATERIALS	OF CONS	TRUCTION.	VALUATION R	Y MATERIALS	OF CONST	RUCTION.
CUSTOMS DISTRICTS.	Total number.	Total tonnage.	w	ood.	Com	posite.	lron a	and steel.	Total		Common	
			Num- ber.	Tonnage.	Num- ber.	Tonnage.	Num- ber.	Tonuage.	valuation.	Wood.	Composite.	Iron an steel.
Total	. 60	6, 372	60	6, 372					\$280, 95 5	\$280, 955		··········
alifornia	42	5, 897	42	5, 897			· · · · · · · · · · · · · · · · · · ·		242, 525	242, 525		
San Diego	2	31	2	31					2, 625	2, 625		
San Francisco		5, 866	40	5, 866					239, 900	239, 900	ļ	}
regon—Oregon	. 10	137	10	137				: i	12, 730	12. 730	! '	ļ
Vashington—Puget sound	. 8	338	. 8	338		 .			25, 700	25, 700		
	-'		·	' P	ILOT B	OATS.	<u>'</u>	1 "				!
	Ē.					1				· · · · -		
Total	. 9	418	9	418					49, 700	49, 700		
alifornia	. 6	258	0	258			;		30, 000	30, 000		
San Diego	. ī	20	. 1	20					3, 000	3, 000	: <u>-</u>	
Wilmington		8	1	8		.	·		2,500	2, 500		
San Francisco	. 4	230	4	230	!	·			24, 500	24, 500		
regon—Oregon	. 2	141	 2	141			· • • • • • • • • • • • • • • • • • • •		19,000	19,000		
Vashington—Puget sound	. 1	19	1	19	<u>.</u>	<u>.</u>		<u> </u>	700	700	• • • • • • • • • • • • • • • • • • • •	•••••
					YACH	TS.		,				-
Total	25	612	25	612					69, 300	69, 300		
alifornia	. 24	604	24	604				=	68, 800	68, 800		:
San Diego	. 7	101	- -	101	i	i —			8, 500			
Wilmington		98		98					7, 500		•••••	
San Francisco		405		405		.!	:		52.800		i	
Vashington—Puget sound	. 1	8	1	8		:			500	500		
		<u></u> -	·	NO TI	RAFFIC	REPORT	<u>' </u>		<u> </u>		<u>i— — — :</u>	
· _ · _ ·	81	6, 200	81	6, 200		<u> </u>	!		203, 275		· · - · -	· ·
alifornia	48	5, 362	48	5, 362	· · · · · · · · · · · · · · · · · · ·				175, 750	175, 750		ت مانده تا تا تا تا تا تا تا تا تا تا تا تا تا
San Diego	4	87	4	87					2. 500	2, 500		–
San Francisco		5, 094	43	5, 094					168, 750			
Humboldt	1	181	. 1	181		ļ	••••••• :	ļl	4, 500	4, 500	,	
rgeon	13	476	13	476					11, 950	11, 950		.
Oregon	10	192	10	192		1			8, 000	8,000		
Willamette	1 '	284	3	284		······			3, 950			
		(,	I		i	l	li li			

EQUIPMENT, OCCUPATION, AND CONSTRUCTION—Continued.

TABLE 6.—CONSTRUCTION BY LOCALITIES—NUMBER, TONNAGE, AND VALUATION OF ALL STEAMERS AND SAILING VESSELS ALLOTTED RESPECTIVELY TO THEIR MATERIALS OF CONSTRUCTION, AND GROUPED BY DISTRICTS.

ALL STEAMERS AND SAILING VESSELS.

			NUMBER	AND TONN	AGE BY	MATERIALS	OF CONS	TRUCTION.	VALUATION	BY MATERIAL	OF CONST	RUCTION.
CLASSES AND CUSTOMS DISTRICTS.	Total number.	Total tonnage.	W	ood.	Con	iposite.	Iron a	nd steel.				
			Num- ber.	Tonnage.	Num- ber.	Tonnage.	Num- ber	Tonnage.	Total valuation.	Wood.	Composite.	Iron and steel.
Total steam and sail	1, 353	378, 583	1,326	328, 076	2	1, 298	25	49, 209	\$22, 242, 025	\$15, 373, 960	\$110,000	\$6, 758, 0 6 5
Total steam	531 822	170, 503 208, 080	506 820	121, 202 206, 874	1	1, 089 209	24 1	48, 212 997	15, 526, 455 6, 715, 570	8, 708, 390 6, 665, 570	100,000	6, 712, 065 40, 000

STEAMERS.

Total for California	251	106, 667	234	78, 260	1	1.089	16	27, 318	9, 792, 905	E 720 040	100,000	3, 960, 06!
-		احضحا				1,089		21, 818	9, 792, 905	5, 732, 840	100,000	3, 900, 00
San Diego, California	8	800	8	800				•••••	62, 500	62, 500		
Ferry	3	488	3	488					31, 500	31, 500		
Harbor tugs	4	294	4	294					28, 500	28, 500		l
Yachts	1	18	1	18	il		·		2, 500	2, 500	······	
Wilmington, California	10	933	10	933	 		i 		188, 500	188, 500	ļ 	·····
Passanger and freight	5	756	5	756					149, 500	149, 500	i	
Harbor tugs	1	89	1	89	ÍI				22, 000	22, 000	l	
No traffic report	4	88	4	88	 				17, 000	17, 000		
San Francisco, California	223	104, 149	206	75, 742	կ կ 1 i	1,089	16	27, 318	9, 459, 405	5, 399, 340	100,000	3, 960, 06
Passenger and freight	136	72, 626	122	44, 775	1	1, 089	13	26, 762	7, 479, 705	3, 581, 640	100,000	3, 798, 06
Ferry	17	22, 063	17	22, 063					784, 500	784, 500	1	
Fish	14	3, 960	14	3, 960	1				341, 000			1
Harbor tugs	44	3, 626	42	3, 275			2	351	732, 000	635, 000		1
No traffic report	12	1, 874	11	1, 669			1	205	122, 200			65, 000
:				2,000					122,200	0,,200	İ	
Humboldt, California	10	785	10	785	ļ. 	· · · · · · · · · · · ·			82, 500	82, 500		ļ
Passenger and freight	6	451	. 6	451					28, 500	28, 500		
Harbor tugs	3	270	3	270		• • • • • • • • • • • • • • • • • • • •			51,000	51, 000		· · · · · · · · · · · · · · · · · · ·
No traffic report	1	64	1	64					3, 000	3, 000		
Total for Oregon	165	50, 628	158	29, 895			7	20, 733	4, 492, 200	1,774,200		2, 718, 00
Southern Oregon	15	771	15	771					70,600	70, 600		
Passenger and freight	12	451	12	651					48, 300	48, 300		
Ferry	1	20	1	20	 				1, 200	1, 200	 	
Harbor tugs	2	100	2	100					21, 100	21, 100		
Ysquina, Oregon	13	2, 281	11	481			2	1, 800	287, 400	112, 400	ļ	175, 00
Passenger and freight	7	1, 077	6	160			1	917	125, 000	30, 000		95, 00
Ferry	1	16	1	16					900	900		
Fish	1	106	1	106					25, 000	25, 0 00		,
Harbor tugs	2	126	2	126	j				44, 500	44, 500		:
No traffic report	2	956	1	73			1	8 83	92,000	12, 000		80,00
Oregon, Oregon	41	3, 172	41	3, 172	'' 				284, 100	284, 100		ļ <u>.</u>
Passenger and freight	33	2, 897	33	2, 897					247, 600	247, 600		l
Fish	5	183	5	185					24, 000	24,000		
Harbor tugs	1	14	1	14					2, 000	2,000		
No traffic report	2	- 76	2	76					10, 500	10, 500		
Willamette, Oregon	96	44, 404	91	25, 471			5	18, 933	3, 850, 100	1, 307, 100		2, 543, 000
Passenger and freight	62	40, 391	60	22, 091			2	18, 8 0	3, 606, 300	1, 141, 300	·	2, 465, 000
Ferry	14	1,747	13	1, 332	 		1	415	116, 200	76, 200		40,000
Fish	3	79	3	79					20, 000	20,000		
Harbor tugs	4	244	2	26	 		2	218	40, 700	2, 700		38,000
No traffic report	18	1,943	13	1, 943	II.	ı .	1		66, 900	66, 900		í

EQUIPMENT, OCCUPATION, AND CONSTRUCTION—Continued.

TABLE 6.—CONSTRUCTION BY LOCALITIES—Continued.

STEAMERS-Continued

			NUMBE	R AND TON	NAGE BY	MATERIALS	OF CONS	TRUCTION.	VALUATION	BY MATERIAL	OF CONST	RUCTION.
CLASSES AND CUSTOMS DISTRICTS.	Total number.	Total tonnage.	W	ood.	Com	posite.	Iron a	nd steel.	(Taka)			Town and
		. -	Num- ber.	Tonnage.	Num- ber.	Tonnage.	Num- ber.	Tonnage.	Total valuation.	Wood.	Compos ite.	Iron and steel.
Puget sound, Washington	115	13, 208	114	13, 047			1	161	\$1, 241, 350	\$1, 201, 350		\$40,00
Passenger and freight	93	10, 642	92	10, 481			1	161	975, 850	935, 850		40, 00
Ferry	2	296	2	296					45, 000	45,000		
Fish	1	13	1	13	. 				1, 500	1, 500		
Harbor tugs	9	1, 346	. 9	1, 346					179, 000	179, 000	· 	!
Yachts	2	45	2	45	·	:l			4,000	4,000		! !- • • • • • • • • • • • • • • • • • • •
No traffic report	. 8	866	8	866	 	i		i	36,000	36, 000	· 	

SAILING VESSELS.

Total for California	697	162, 946	695	161,740	1	209	1	997	5, 753, 975	5, 703, 975	\$10,000	40,00
an Diego, California	21	461	21	461					36, 975	36, 975		
Freight	7	222	7	222					20, 350	20, 350		i
Fish	2	31	2	31					2, 625	2, 625		
Pilot boats	1	20	1	20	il				3, 000	3,000		
Yachts	7	101	7	101					8, 500	8, 500		1
No traffic report	4	87	4	87		!			2, 500	2, 500		ļ
ilmington, California	13	694	13	694		· · · · · · · · · · · · · · · · · · ·			37, 400	37, 400	!	
Freight	8	588	8 .	588					27, 400	27, 400		
Pilot boats	1	8	1 !	8					2, 500	2, 500		
Yachts	4	98	4	98					7. 500			
n Francisco, California	640	158, 519	647	157, 313	1,	209	1	997	5, 434, 100	5, 384, 100	10,000	. 40,00
Freight	549	146, 924	547	145, 718	1	209	1	997	4, 948, 150	4, 898, 150	10,000	40.0
Fish	40	5, 866	40	5, 866					239, 900			
Pilot boats	4	230	4	230					24, 500	24, 500		
Yachts	13	405	13	405					52, 800	52, 800	ļ	
No traffic report	43	5, 094	43	5, 094					168, 750	168, 750	,	
umboldt, California	14	3, 272	14	3, 272		:. 			245, 500	245, 500	: 	I
Thurst and A								j				
Freight	13	3, 091	13	3, 091		••••••	•••••		241,000	-•		
No traffic report	1	181	1	181			•••••		4, 500	4, 500	;	
Total for Oregon	43	2, 776	43	2, 776					97, 065	97, 065	i	–
uthern district Oregon, Oregon:												
Freight	1	90	1	90			••••••		8, 000	8, 000		
egon. Oregon	36	690	36	690					50. 080	50, 080		
Freight	14	220	14	220					10, 350	10, 350		
Fish	10	137	10	137					12, 730	12, 730	·	
Pilot boats	2	141	2	141	<u> </u>				19, 000	19, 000		·
No traffic report	10	192	10	192					8,000			
illamette, Oregon	6	1, 996	6	1, 996					38, 985	38, 985	;. 	
Freight	3	1,712	3	1, 712					35, 035	35, 035		
No traffic report	3	284	3	284	j			·	3, 950	3, 950	: 	
get sound, Washington	82	:2, 358	82	42, 358		••••••			864, 530	864, 530	 	•
Freight	52	41, 631	52	41, 631					822. 055	822, 055		
Fish	8	338	8	338	-				25, 700	25, 700	 	
Pilot boats	1	19	1 :	19					700	700	; !********	
Yachts	1	8	1 .	8	-				500	500		
No traffic report	20	362	20	362	1 1	'		i i	15, 375	15 575		

TRAFFIC OPERATIONS.

TABLE 7.—TRAFFIC IN GENERAL—TRIPS, MILES COVERED, PASSENGERS CARRIED, AND TONS OF FREIGHT MOVED BY ALL OPERATING CRAFT ON THE PACIFIC COAST IN 1889, EXCLUSIVE OF FISHING VESSELS NOT ENGAGED IN THE TRANSPORTATION OF FISHING PRODUCTS AS FREIGHT.

	ALL CRAFT.				STEAMERS.				S.	UNRIGGED CRAFT.		
CUSTOMS DISTRICTS. Trip	Trips.	Miles.	Freight. (Tons.)	Passengers.	Tripe.	Miles.	Freight. (Tons.)	Passengers.	Trips.	Miles.	Freight. (Tons.)	Freight. (Tons.)
Total	672, 670	12, 273, 515	8, 818, 363	4, 019, 329	633, 684	6, 766, 160	5, 741, 940	4, 019, 329	38, 986	5, 507, 355	2, 761, 826	314, 59
California	236, 216	8, 239, 608	5, 148, 940	825, 177	199, 917	3, 323, 122	2, 684, 383	825, 177	36, 290	4, 916, 486	2, 401, 593	62, 96
San Diego	39, 224	59, 141	35, 384	545, 558	39, 158	43, 867	20	545, 558	66	15, 274	2,300	33, 06
Wilmington	639	75, 188	152, 297	12, 305	410	48, 752	144, 726	12, 305	229	26, 436	7, 571	· • • • • • • • • • • • • • • • • • • •
San Francisco	192.011	7, 979, 209	4, 799, 553	242, 354	156, 843	3, 207, 096	2, 420, 955	242, 354	35, 168	4, 772, 113	2, 351, 598	27, 000
Humboldt	4, 342	126, 070	161, 706	24, 960	3, 506	23, 407	118, 682	24, 960	836	102. 663	40, 124	2, 900
Oregon	390, 704	1, 848, 497	1, 027, 617	2, 698, 503	389, 096	1, 789, 435	905, 677	2, 698, 503	1, 6 08	59, 062	34, 050	87, 890
Southern Oregon	6, 727	107, 142	178, 275	33, 860	6, 706	98, 222	119, 499	33, 860	21	8, 920	2, 916	55, 866
Yaquina	4,000	68, 158	31, 583	15, 722	4,000	68, 158	a31, 583	15, 722		'		(b)
Oregon	15, 256	295, 818	263, 227	98, 006	13, 692	276, 076	242, 130	98,006	1,564	19, 742	21,097	(b)
Willamette	364, 721	1, 377, 379	554, 532	2, 550, 915	364, 698	1, 346, 979	512, 465	2, 550, 915	23	30, 400	10, 037	32, 036
Washington - Puget sound.	45, 750	2, 185, 410	2, 641, 806	495, 649	44, 671	1, 653, 603	2, 151, 880	495, 649	1, 079	531, 807	326, 183	163, 74

a Includes unrigged craft.

 \boldsymbol{b} Included in steamers.

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TRAFFIC OPERATIONS—Continued.

TABLE S.—FREIGHT TRAFFIC BY COMMODITIES—PRINCIPAL COMMODITIES IN TONS OF THE TOTAL FREIGHT MOVED BY ALL OPERATING CRAFT ON THE PACIFIC COAST IN 1889.

ALL CRAFT.

CUSTOMS DISTRICTS.	Total of all com- modities.	Agricultural products.	Coal.	Mines and quar- ries.	Lumber and other forest products.	Animal prod- ucts includ- ing fish.	Manufacture and general merchandisc
Total for all cruft	8, 818, 363	1, 152, 100	1, 075, 600	522, 497	4, 239, 656	74, 509	1, 754, 00
	·	STEAME	RS.				
Total	5, 741, 940	851, 041	407, 635	305, 551	3, 023, 547	30, 706	1, 123, 460
California	2, 684, 383	754, 423	355, 726	192, 333	616, 045	12, 275	753, 581
San Diego	20					20	
Wilmington	144, 726	148	67, 235	50,000	8, 62 0		. 18,723
San Francisco	2, 420, 955	753, 683	288, 491	98, 032	537, 381	12, 176	731, 192
Humboldt	118, 682	592		44, 301	70, 044	79	3.006
regon	905, 677	50, 382	50, 872	62, 034	590, 032	12, 660	139,697
S	110 400	940	25	502	113, 877	150	4,005
Southern Oregon	119, 499		25	. 502			I -
Yaquina	31,583	14, 762	100		881	1,534	14,406
Oregon	242, 130	5, 476	160	5, 380	201, 407	2,972	26, 735
Willamette	512, 465	29, 204	50, 687	56, 152	273, 867	8.004	94.551
Vashington—Puget sound	2, 151, 880	46, 236	1, 037	51, 181	1. 817, 470	5, 771	230, 182
		SAILING VE	SSELS.	•			
Total	2, 761, 826	262, 559	627, 995	214, 946	1, 154, 325	43, 803	458, 198
California	2, 401, 593	253, 325	569, 842	210, 006	921, 153	37, 590	409, 677
San Diego	2, 300			120		102	2,078
Wilmington	7, 571			. 10	7, 445	80	36
San Francisco	2, 351, 598	253, 225	569, 842	208, 333	877, 331	37, 408	405, 450
Humboldt	40, 124	100		. 1, 543	36, 377	ļ	2.104
Pregon	34, 050	912	·	. 42	17, 386	4, 133	11,577
Southern Oregon	2, 916				2, 466	ļ	450
Oregon	21,097	597		42	14, 481	3, 433	2,544
Willamette	10, 037	315	• • • • • • • • • • • • • • • • • • • •		439	700	8, 563
Washington—Puget sound	326, 183	8, 322	58, 153	4, 898	215, 786	2, 080	36,944
	<u>'</u>	UNRIGGED (CRAFT.			1	!
Total	314, 597	38, 500	39, 970	2,000	61, 784	1	172,36
an Diego, California	33, 064	- -	19, 790		13, 274	!	
an Francisco, California	27,000	18, 500	10, 100		8, 500		
Lumboldt, California	2, 900	10,000		i	900		. 0
•	1	20,000					10.
outhern Oregon, Oregon	55, 860	20,000	47 000		25, 860		7.
Villamette, Oregon	32, 030 163, 743		17, 030 3, 150	2, 000	8, 000 5, 250		153_
Puget sound, Washington							

TRAFFIC OPERATIONS—Continued.

TABLE 9.—INTERDISTRICT MOVEMENT (FREIGHT)—AMOUNT OF EACH COMMODITY MOVED WITHIN OR BETWEEN WELL DEFINED TRAFFIC DISTRICTS BY ALL OPERATING CRAFT OF EACH CUSTOMS DISTRICT. (a)

ALL CRAFT.

INTERDISTRIC	T MOVEMENT.	Ĺ		соммої	OITIES (IN	tons).		
From—	To-	Total.	Coal.	Lumber.	Mines and quarries.	Agricul- tural.	Animal products including fish.	All other products
Total		8, 818, 363	1, 075, 600	4. 239, 656	522, 497	1, 152, 100	74, 509	1, 754, 001
S	SAN DIEGO, CALIFORNIA (STEAMERS	AND UNR	RIGGED C	RAFT).				
1 Southern California coast	1 Southern California coast	33, 084	19, 790	13, 274			20	
	SAN DIEGO, CALIFORNIA (SA	ILING VE	SSELS).					
Total		2, 300		!	120		102	2, 07
2 San Francisco bay and rivers	7 Foreign	. 80			. 80			-=-
1 Southern California coast	1 Southern California coast	1,823		 			. 90	1, 733
7 Foreign	7 Foreign				40		12	225
	/ Foleign	1		-			1	
	. SAN DIEGO, CALIFORNIA	(ALL CRA	FT).					
Total		35, 384	19, 790	13, 274	120		122	. 2,078
2 San Francisco bay and rivers	7 Foreign	80		, 	80			
1 Southern California coast	1 Southern California coast	34, 907 225	19, 790	13, 274	 		110	1, 733 224
7 Foreign	I Southern California coast		4	j	40		12	120
			<u>i</u>		<u> </u>			i
W.	ILMINGTON, CALIFORNIA (STEAMER	S AND UN	RIGGED	CRAFT).				
Total		144, 726	67, 235	8, 620	50, 000	148		18, 723
4 Oregon coast	1 Southern California coast	8, 768	!	8, 620		148		
1 Southern California coast	4 Oregon coast	27 135, 931	67, 235		50,000			18, 69
	WILMINGTON, CALIFORNIA (S	AILING V	ESSELS).	1	<u> </u>		1	<u> </u>
Total		7,571	1	7, 445	10		. 80	30
	1 Southern California coast			1, 400				
	do			1, 450				
3 Northern California coast	do	4, 500		4, 500	ļ			
1 Southern California coast	do	221		95	10		80	30
	WILMINGTON, CALIFORNIA	ALL CR.	AFT).			•		
Total'		152, 297	67, 235	16, 065	50, 010	148	80	18, 759
6 Puget sound and Washington	1 Southern California coast	1, 400		1, 400				
4 Oregon coast	1	10, 218		10, 070		148		
3 Northern California coast	`	1		4,500		i I	 	
1 Southern California coast	do	136, 152 27	67, 235	95	50, 010		80	18, 732 27
	a See page 7.	' -		1	<u> </u>	<u> </u>	<u> </u>	<u> </u>

TRAFFIC OPERATIONS—Continued.

TABLE 9.—INTERDISTRICT MOVEMENT (FREIGHT)—Continued.

SAN FRANCISCO, CALIFORNIA (STEAMERS AND UNRIGGED CRAFT).

INTERDISTRIC	T MOVEMENT.	COMMODITIES (IN TONS).								
From—	To—	Total.	Coal.	Lumber.	Mines and quarries.		Animal products including fish.	All other product		
Total		2, 447, 955	288, 491	545, 881	98, 032	772, 183	12, 176	731, 19		
6 Puget sound and Washington	2 San Francisco bay and rivers	92, 125 1, 730	67, 853	24, 272 1, 212			518			
4 Oregon coast		81, 208 1, 208	50, 000	28, 447 988		2, 761 220		ļ 		
3 Northern California coast Do Do Do	2 San Francisco bay and rivers	47, 074 264, 047 48, 803 941		1, 024° 256, 283 48, 294 941	45,000	6, 418	1, 050 1, 346	500		
Do	4 Oregon coast. 3 Northern California coast. 2 San Francisco bay and rivers. 1 Southern California coast. 7 Foreign.	13, 969 11, 503 32, 260 1, 222, 223 319, 491 19, 014 18, 897	56, 981 43, 700	143, 933 3, 675	22, 024		6, 150	13, 969 11, 548 32, 260 352, 112 272, 116 19, 014 18, 720		
1 Southern California coast	2 San Francisco bay and rivers	161, 275 12, 000 3, 370	270	36, 416	15,318	109, 041 12, 000 682	500	2,218		
7*Foreign	2 San Francisco bay and rivers	15, 600 4, 245 73, 181 35 1, 029	4, 245 64, 236	188	15, 600	25	10	8, 797		
9 Alaska and Bering sea	2 San Francisco bay and rivers	2, 602		8	90	13	2, 602	14		

SAN FRANCISCO, CALIFORNIA (SAILING VESSELS).

Total		2, 351, 598	569, 842	877, 331	208, 333	253, 225	37, 408	405, (
uget sound and Washington	6 Puget sound and Washington	. 2, 547	1, 651					
Do	5 Columbia and Willamette rivers	. 905	ľ	905				
	3 Northern California coast			321				
Do	2 San Francisco bay and rivers	415, 633	238, 041	177, 279				3
Do	1 Southern California coast	. 36, 632	3, 647					·
Do	7 Foreign	. 61, 764		61, 764				1
Do		. 003		800				
	· ·		à					
olumbia and Willamette rivers	3 Northern California coast	. 2,445	'¦			1		
Do	2 San Francisco bay and rivers	40, 515			;		• • • • • • • • • •	٠. ١
Do	1 Southern California coast	9. 493	i	9, 461		32		
Do	7 Foreign	. 2,847	j	2.847				٠
regon coast	2 San Francisco bay and rivers	101.632	1	100, 268	!		045	í
tegon const	1 Southern California coast	5, 588		5, 588			849	,
100	I Southern Camiornia coast	0,588	• • • • • • • • • • • • • • • • • • • •					
ро	7 Foreign	. 1. 160	•••••	1, 160		· · · · · · · · · · · · · · · ·	• • • • • • • • • •	•••••
orthern California coast	6 Puget sound and Washington	. 485		485				!
1)0	5 Columbia and Willamette rivers	635		635				
	2 San Francisco bay and rivers		3, 375					
Do	1 Southern California coast	37, 960	1, 125			2,002	120	
Do.	7 Foreign	7, 383	1, 120					
	г тогови	,		.,	•••••		· • • • • • • • • • • • • • • • • • • •	
in Francisco bay and rivers	6 Puget sound and Washington	. 27, 348	ļ					
	5 Columbia and Willamette rivers							11.
Do	4 Oregon coast	. 10, 589	56	 .	l	·	. 	10,
Do	3 Northern California coast	. 7. 423				l		7.
Do	2 San Francisco bay and rivers	820, 828	112, 459		200, 784			i 137.
Do	1 Southern California coast	1, 476	, 112, 100				,,,,,,	
	7 Foreign		3, 280				••••	84.
The .	9 Alaska and Bering sea	28, 370	3, 685	1 245		14,010	•••••	
1/0	b Alasak and Dering sea	20,310	3,003	1, 240		:	•••••	
outhern California coast	6 Puget sound and Washington	. 165						
Do	5 Columbia and Willamette rivers	. 750						
Do	2 San Francisco bay and rivers	. 33	i' 		l		.	1
Do	1 Southern California coast	. 535			: 	·		i
Do	7 Foreign	. 1,125	·	600	400	1		: •
Do	9 Alaska and Bering sea	. 638						
•	a. D. and a small and West to stone	0.550						i 1
reign	6 Puget sound and Washington		2,016			0.565		55.
100	2 San Francisco bay and rivers	. 224, 664	124, 365	6, 054	4,013		1, 605	2
100	1 Southern California coast	. 33, 685	33, 685	'		; · ·	••••••	
Do	7 Foreign	. 38, 658	24, 916				230	
Do	8 Atlantic ports	. 3, 136			3, 136			
Do	9 Alaska and Bering sea	. 1,500	1,500					•••••
N., 4!	O. Nov. Door of the board also and		ļį		: ·			5.
tlantic ports	2 San Francisco bay and rivers	. 5, 550 3, 560					•••••	ì
170	i vicigii	. 5,500	• • • • • • • • • • • • • • • • • • • •	•••••			•••••	"
aska and Bering sea	6 Puget sound and Washington	. 1,820			·		1, 820	J
	o the Beautiful have and store	41,734	16, 041	98		1	24, 053	1 1
Do	2 San Francisco Day and rivers							
	2 San Francisco bay and rivers 7 Foreign	201					201	

TRAFFIC OPERATIONS—Continued.

TABLE 9.—INTERDISTRICT MOVEMENT (FREIGHT)—Continued.

SAN FRANCISCO, CALIFORNIA (ALL CRAFT).

INTERDISTRI	CT MOVEMENT.			COMMOI	DITIES (IN	tons).		
From—	To-	Total.	Coal.	Lumber.	Mines and quarries.	Agricul- tural.	Animal products including fish.	All other products
Total		4, 799, 553	858, 333	1, 423, 212	306, 365	1, 025. 408	49, 584	1, 136, 651
Puget sound and Washington	6 Puget sound and Washington	2, 547	1, 651					896
Do	5 Columbia and Willamette rivers	905		905				· · · · · · · · ·
Do	. 2 San Francisco hav and rivers	321 507, 758	305, 894	321 201, 551				31
Do	. 1 Southern California coast 7 Foreign	38, 362 61, 764	3, 647	34. 197				
Do	9 Alaska and Bering sea	800	ˈ	61, 764 800				
Columbia and Willamette rivers		2,445	 	2, 445				
Do		40, 515 9, 493		39, 838 9, 461				67
Do	7 Foreign	2,847		2, 847				· · · · · · · · · · · · · · · · · · ·
Oregon coast	2 San Francisco bay and rivers	182, 840	50,000	128, 715		2, 761	945	41
Do	. 1 Southern California coast	6, 796	30,000	6, 576				
Do	7 Foreign	1, 160		1, 160	·····	· · · · · · · · · · · · · · · · · · ·		
Northern California coast	. 6 Puget sound and Washington	485		485	! . 			
Do	. 5 Columbia and Willamette rivers	635 47, 074	l	635 1, 024	45 000			
Do		510,071	3, 375	495, 722	45,000	8, 802	1,030	70
Do	. 1 Southern California coast	86, 763	1, 125	85, 119	;		ļ 	51
Do	7 Foreign	8, 324		8, 324				• • • • • • • •
San Francisco bay and rivers		41, 317						41, 31
Do		11. 905 22. 092	56					11.90 22,03
Do	. 3 Northern California coast	39, 683	J					39, 68
Do		2, 043, 051	169, 440	272, 587	222, 808	874, 489	14, 068	489, 65 272, 11
Do		320, 967 127, 392	43, 700 3, 280	5, 151 6, 236		14, 578		103, 29
Do		47, 267	3, 862	1, 245				42, 16
Southern California coast	6 Puget sound and Washington	165			İ			16
Do	. 5 Columbia and Willamette rivers	750						75
Do		161, 308 12, 535		36, 416	15,318	109, 041 12, 000	500 510	3: 2:
Do	. 7 Foreign	4, 495	270	800	400	682		2, 34
Do	9 Alaska and Bering sea	638			!	· · · · · · · · · · · · · · · · · · ·		638
Foreign		18, 358	2, 016		15, 600			742
Do	. 5 Columbia and Willamette rivers	4, 245 297, 845	4, 245 188, 601	6, 242	4, 013	2, 765	1, 605	94, 619
Do	. 1 Southern California coast	33, 720	33, 685	0, 343	· • • · · · · · · · · · · · · · · · · ·	2, 705	10	
Do	. 7 Foreign	38, 658	24, 916	12, 612		'	230	90
Do	. 8 Atlantic ports	3, 136 2, 529	2, 529		3, 136			
Atlantic ports	2 San Francisco bay and rivers	5, 550	i			i	1	5, 55
Do	7 Foreign	3, 560		1	! • • • • • • • • • • • • • • • • • • •	• • • • • • • • • • • • • • • • • • •		3, 50
Alaska and Bering sea	•	1.820	1		İ	1	1, 820	
Do	. 2 San Francisco bay and rivers	44, 336	16,041	26		·	26, 655	1, 61
Do	7 Foreign	201	١	8	90	13	201	14
Do	9 Alaska and Bering sea	125	<u> </u>		80		i	1.
, 1	HUMBOLDT, CALIFORNIA (STEAMERS	AND UNF	RIGGED C	RAFT).				
Northern California coast.	3 Northern California coast	121, 582	ļ	70, 944	44, 301	592	79	5, 66
	HUMBOLDT, CALIFORNIA (SA	ILING VE	ESSELS).					
Total		40, 124		36, 377	1, 543	100	1	2, 10
Puget sound and Washington	2 San Francisco bay and rivers	4, 781	1	4, 781				
Columbia and Willamette rivers		400	<u> </u>	400				
Do		625	 	625			· · · · · · · · · · · · · · · · · · ·	
Oregon coast	. 2 San Francisco bay and rivers	1,608		1, 608		· · · · · · · · · · · · · · · · · · ·	· · · · · · · · · · · · · · · · · · ·	•
Northern California coast		455	ļ	455	· · · · · · · · · · · · · · · · · · ·		••••••	· · · · · · · · · · · ·
Do		625 5, 880		625 5, 780		100		
Do	. 2 San Francisco bay and rivers	11, 603	<u> </u>	11,603	[
Do	. 1 Southern California coast	7, 520 2, 065		7. 520 2, 065	····		·	• • • • • • • •
			j:	2,000	J			••••••
San Francisco bay and rivers	. 6 Puget sound and Washington	100	 		ļ		·	10
Do		100 200						10 20
Do		1,887		915				97
7 Foreign	2 San Francisco bay and rivers	2, 275	1		1,543	. .		73
- v. v. 8			!	1	1,010		ļ	10
		-						

TRAFFIC OPERATIONS—Continued.

TABLE 9.—INTERDISTRICT MOVEMENT (FREIGHT)—Continued...

HUMBOLDT, CALIFORNIA (ALL CRAFT).

INTERDISTRICT MOVEMENT.			COMMODITIES (IN TONS).									
From—	То—	Total.	Coal.	Lumber.	Mines and quarries.	Agricul- tural.	Animal products including fish.	Ail other product				
Total		161, 706	! 	107, 321	45, 844	692	79					
6 Puget sound and Washington	2 San Francisco bay and rivers	4, 781		4, 781								
5 Columbia and Willamette rivers		400 625	ļ	400 625	ļ			••••				
4 Oregon coast		1, 608		1,608				••••••				
3 Northern California coast	-	455		455								
Do	5 Columbia and Willamette rivers	625 127, 462		625 76, 724	44, 301	692	79	5, 66				
Do	2 San Francisco bay and rivers	11, 603 7, 520		11, 603 7, 520								
Do	7 Foreign	2, 065		2,065				· • • • • • • • • • • • • • • • • • • •				
2 Sau Francisco bay and rivers Do	5 Columbia and Willamette rivers	100 100	 				 	100 100				
Do		200 1,887		915	ļ			200 973				
7 Foreign	i	2, 275			1, 543			732				
SOUTI	IERN DISTRICT OREGON, OREGON (STE.	AMERS AI	ND UNRI	GGED CR	AFT).	·	·	_				
4 Oregon coast	4 Oregon coast	175, 359	25	139, 737	502	20, 940	150	14. 005				
	SOUTHERN DISTRICT OREGON, OREG	ON (SAILI	ING VESS	SELS).	!		<u>'</u>					
Total		2, 916		2, 466				450				
4 Oregon coast	2 San Francisco bay and rivers	2, 204 262		2, 204 262								
					l .	1						
2 San Francisco bay and rivers	4 Oregon coast.	450						450				
2 San Francisco bay and rivers	SOUTHERN DISTRICT OREGON, OR		L CRAFT	142, 203	502	20, 940	150	14, 455				
Total	SOUTHERN DISTRICT OREGON, OR 4 Oregon coast	EGON (AL	1:	1	502	20, 940	150	14, 455				
Total	SOUTHERN DISTRICT OREGON, OR	EGON (AL 178, 275 175, 359 2, 204	25	142, 203 139, 737 2, 204								
Total	SOUTHERN DISTRICT OREGON, OR 4 Oregon coast	EGON (AL 178, 275 . 175, 359 2, 204 262 450	25	142, 203 139, 737 2, 204 262				14,005				
Total	SOUTHERN DISTRICT OREGON, OR 4 Oregon coast	EGON (AL 178, 275 . 175, 359 2, 204 262 450	25	142, 203 139, 737 2, 204 262 		20, 940		14,005				
Total	SOUTHERN DISTRICT OREGON, OR 4 Oregon coast	EGON (AL 178, 275 . 175, 359 2, 204 262 450 D UNRIGG	25	142, 203 139, 737 2, 204 262 	502	20, 940	150	14,005				
Total	SOUTHERN DISTRICT OREGON, OR 4 Oregon coast	EGON (AL . 178, 275 . 175, 359 2, 204 262 450 D UNRIGG 31, 583 . 1, 343 1, 094	25	142, 203 139, 737 2, 204 262 FT). 881 83 184	502	20, 940	1,534	14, 405				
Total	SOUTHERN DISTRICT OREGON, OR 4 Oregon coast	EGON (AL , 178, 275 , 175, 359 2, 204 262 450 UNRIGG 31, 583 , 1, 343	25	142, 203 139, 737 2, 204 262 ET). 881	502	20, 940 14, 762	1,534	14, 005				
Total	SOUTHERN DISTRICT OREGON, OR 4 Oregon coast	EGON (AL 178, 275 . 175, 359 2, 204 262 450 UNRIGG 31, 583 1, 343 1, 094 2, 453	25	142, 203 139, 737 2, 204 262 FT). 881 83 184 494	502	20, 940 14, 762	1,534	14, 005 450 14, 406 1, 160				
Total	SOUTHERN DISTRICT OREGON, OR 4 Oregon coast	EGON (AL 178, 275 175, 359 2, 204 262 450 UNRIGG 31, 583 1, 343 1, 094 2, 453 4, 603 22, 090	25 25 ED CRAI	142, 203 139, 737 2, 204 262 FT). 881 83 184 494 120	502	20, 940 14, 762 100 85	1,534	14, 005 450 14, 406 1, 100				
Total	SOUTHERN DISTRICT OREGON, OR 4 Oregon coast	EGON (AL 178, 275 175, 359 2, 204 262 450 UNRIGG 31, 583 1, 343 1, 094 2, 453 4, 603 22, 090	25 25 ED CRAI	142, 203 139, 737 2, 204 262 FT). 881 83 184 494 120	502	20, 940 14, 762 100 85	1,534	14, 005 450 14, 406 1, 100				
Total	SOUTHERN DISTRICT OREGON, OR 4 Oregon coast. 2 San Francisco bay and rivers. 1 Southern California coast. 4 Oregon coast. YAQUINA, OREGON (STEAMERS ANI 4 Oregon coast. 5 Columbia and Willamette rivers. 4 Oregon coast. 2 San Francisco bay and rivers. 4 Oregon coast. OREGON, OREGON (STEAMERS AND OREGON, OREGON (STEAMERS AND 6 Puget sound and Washington. 5 Columbia and Willamette rivers.	EGON (AL 178, 275 . 175, 359 2, 204 262 450 UNRIGG 31, 583 . 1, 343 1, 094 2, 453 4, 603 22, 090 UNRIGG 242, 130 100, 464 427	ED CRAI	142, 203 139, 737 2, 204 262 FT). 881 83 184 494 120	502	14,762 100 85	1,534 1,534 825 709	14, 005 450 14, 406 1, 100				
Total	SOUTHERN DISTRICT OREGON, OR 4 Oregon coast	EGON (AL 178, 275 . 175, 359 2, 204 262 450 DUNRIGG 31, 583 . 1, 343 1, 094 2, 453 4, 603 22, 090 UNRIGG 242, 130 100, 464 427 400 315 104, 547	ED CRAI	142, 203 139, 737 2, 204 262 ET). 881 83 184 494 120 ET).	502	20, 940 14, 762 100 85 14, 577	1,534 825 709	14, 005 450 14, 406 1, 100				
Total	SOUTHERN DISTRICT OREGON, OR 4 Oregon coast	EGON (AL 178, 275 . 175, 359 2, 204 262 450 UNRIGG 31, 583 1, 343 1, 094 2, 453 4, 603 22, 090 UNRIGG 242, 130 100, 464 427 400 315 104, 547 250 1, 805	25 25 ED CRAI	142, 203 139, 737 2, 204 262 FT). 881 83 184 494 120 FT). 201, 407 94, 781 77, 267 1, 345	5, 380	20, 940 14, 762 100 85 14, 577 5, 476 1, 221 3, 180 400	1, 534 825 709 2, 972	14, 406 14, 406 1, 160 1, 250 4, 453 7, 513 26, 735 3, 889 315				
Total	SOUTHERN DISTRICT OREGON, OR 4 Oregon coast. 2 San Francisco bay and rivers. 1 Southern California coast. 4 Oregon coast. YAQUINA, OREGON (STEAMERS AND 4 Oregon coast. 5 Columbia and Willamette rivers. 4 Oregon coast. 2 San Francisco bay and rivers. 4 Oregon coast. OREGON, OREGON (STEAMERS AND OREGON, OREGON (STEAMERS AND 6 Puget sound and Washington. 5 Columbia and Willamette rivers. 4 Oregon coast. 6 Puget sound and Washington. 5 Columbia and Willamette rivers. 4 Oregon coast. 5 Columbia and Willamette rivers. 4 Oregon coast. 5 Columbia and Willamette rivers. 5 Columbia and Willamette rivers. 5 Columbia and Willamette rivers. 6 Puget sound and Washington. 6 Puget sound and Washington. 6 Puget sound and Washington.	EGON (AL 178, 275 . 175, 359 2, 204 262 450 D UNRIGG 31, 583 . 1, 343 1, 094 2, 453 4, 603 22, 090 UNRIGG 242, 130 100, 464 427 400 100, 464 127 400 1, 805 1, 300 212	25 25 ED CRAI	142, 203 139, 737 2, 204 262 FT). 881 83 184 494 120 T). 201, 407 94, 781 77, 207 1, 345 1, 000	5, 380	20, 940 14, 762 100 85 14, 577 5, 476 1, 221 3, 180 400 300	1, 534 825 709 2, 972	14, 406 14, 406 1, 160 1, 1				
Total	SOUTHERN DISTRICT OREGON, OR 4 Oregon coast. 2 San Francisco bay and rivers 1 Southern California coast. 4 Oregon coast. YAQUINA, OREGON (STEAMERS ANI 4 Oregon coast. 5 Columbia and Willamette rivers. 4 Oregon coast. 2 San Francisco bay and rivers. 4 Oregon coast. OREGON, OREGON (STEAMERS AND 6 Puget sound and Washington. 5 Columbia and Willamette rivers. 4 Oregon coast. 6 Puget sound and Washington. 5 Columbia and Willamette rivers. 4 Oregon coast. 5 Columbia and Willamette rivers. 4 Oregon coast. 5 San Francisco bay and rivers. 5 Columbia and Willamette rivers. 6 Puget sound and Washington. 7 Columbia and Willamette rivers. 8 Oregon coast. 9 Oregon coast. 1 Southern California coast. 1 Southern California coast. 1 Oregon coast.	EGON (AL 178, 275 175, 359 2, 204 262 450 UNRIGG 31, 583 1, 343 1, 094 2, 453 4, 603 22, 090 UNRIGG 242, 130 100, 464 427 400 315 104, 547 400 315 104, 547 109, 590 1, 805 1, 300	25 25 ED CRAI	142, 203 139, 737 2, 204 262 FT). 881 83 184 494 120 FT). 201, 407 94, 781 77, 267 1, 345	5, 380	20, 940 14, 762 100 85 14, 577 5, 476 1, 221 3, 180 400	1, 534 825 709 2, 972	14, 406 14, 406 1, 160 1, 160 1, 160 1, 250 36, 735 3, 889 17, 538 200				

TRAFFIC OPERATIONS—Continued.

TABLE 9.—INTERDISTRICT MOVEMENT (FREIGHT)—Continued.

OREGON, OREGON (SAILING VESSELS).

Total 6 Puget sound and Washington 6 Puget sound and Washington 5 Columbia and Willamette rivers 5 Columbia and Willamette rivers 4 Oregon coast 5 Columbia and Willamette rivers 7 Foreign 9 Alaska and Bering sea OREGON, OREGON (ALL CONTROL OREGON) OREGON (ALL CONTROL OREGON) OREGON (ALL CONTROL OREGON) OREGON (ALL CONTROL OREGON) OREGON (ALL CONTROL OREGON) OREGON (ALL CONTROL OREGON) OREGON (ALL CONTROL OREGON) OREGON (ALL CONTROL OREGON) OREGON (ALL CONTROL OREGON) OREGON (ALL CONTROL OREGON) OREGON (ALL CONTROL OREGON) OREGON (ALL CONTROL OREGON) OREGON (ALL CONTROL OREGON) OREGON (ALL CONTROL OR OREGON) OREGON (ALL CONTROL OR OREGON) OREGON (ALL CONTROL OR OREGON) OREGON (ALL CONTROL OR OR OREGON) OREGON (ALL CONTROL OR OR OR OR OR OR OR OR OR OR OR OR OR	Total. 21, 097 2, 576 18, 503 5 8 5	Coal.	14, 481	Mines and quarries.	Agricultural.	Animal products including fish.	All other products.
6 Puget sound and Washington 6 Puget sound and Washington 5 Columbia and Willamette rivers 4 Oregon coast 4 Oregon coast 5 Columbia and Willamette rivers 7 Foreign 9 Alaska and Bering sea OREGON, OREGON (ALL COREGON) OR	2,576 18,503 5 8		' 	42	597		
5 Columbia and Willamette rivers. 4 Oregon coast. 4 Oregon coast. 5 Columbia and Willamette rivers. 6 Poreign. 6 Puget sound and Washington 100. 100. 5 Columbia and Willamette rivers. 6 Puget sound and Washington 100. 5 Columbia and Willamette rivers. 6 Puget sound and Washington 100. 5 Columbia and Willamette rivers. 6 Puget sound and Washington 100. 1	18, 503 5 8 5		14, 478			3, 433	2, 54
Do	5 8 5		14, 478 3	1 .		2, 551	2
OREGON, OREGON (ALL Compared to the compared	5		۱ ۱	40 2	597	877	2, 51
Total		ļ	•	 			
Total 6 Puget sound and Washington Do	('P A IPT)		••••••	;····;		5	
6 Puget sound and Washington 10	CRAFI).					<u>`</u>	
Do. 5 Columbia and Willamette rivers. 6 Oregon coast. 5 Columbia and Willamette rivers. 6 Puget sound and Washington 5 Columbia and Willamette rivers. 6 Oregon coast. 7 Oregon coast. 8 Oregon coast. 9 Osuthern California coast. 1 Oregon coast. 1 Oregon coast. 1 Oregon coast. 1 Oregon coast. 1 Oregon coast. 1 Oregon coast. 1 Oregon coast. 1 Oregon coast. 1 Oregon coast. 2 San Francisco bay and rivers. 3 Columbia and Willamette rivers. 1 Southern California coast. 1 Oregon co	263, 227	160	215, 888	5, 422	6. 073	6, 405	29, 27
Do	103, 040		94, 781		1, 221	3, 114	3, 92
Do	427 400			· · · · · · · · · · · · · · · · · · ·		427	400
Do. 4 Oregon coast. Do. 2 San Francisco bay and rivers. Do. 1 Southern California coast. 4 Oregon coast. 6 Puget sound and Washington Do. 5 Columbia and Willamette rivers. Do. 4 Oregon coast. 2 San Francisco bay and rivers 5 Columbia and Willamette rivers. 1 Southern California coast. do 7 Foreign 9 Alaska and Bering sea. WILLAMETTE, OREGON (STEAMERS AND	315			4 (80)		9 950	318
Do	123, 050 255	160	91, 745	4, 460 2		2, 859	20, 049 256
Do	1, 805 1, 300		1, 345 1, 000		460 300		
Do	212 8						21
1 Southern California coast	28, 930		27, 014	960	315		64:
7 Foreign 9 Alaska and Bering sea	2, 288				•••••	<u>'</u> i	2, 28
WILLAMETTE, OREGON (STEAMERS AND	1, 192		j				1, 19
Total	5		·····			5	
	D UNRIC	GED CR	AFT).				
· · · · · · · · · · · · · · · · · · ·	544, 495	67, 717	281, 867	56, 152	29, 204	8, 004	101, 55
6 Puget sound and Washington 5 Columbia and Willamette rivers. Do 2 San Francisco bay and rivers. 7 Foreign	800 52, 186 14, 466	50, 652	180				800 1, 354 14, 466
5 Columbia and Willamette rivers. 6 Puget sound and Washington 5 Columbia and Willamette rivers. 4 Oregon coast.	7, 381 467, 230 2, 427	30 17, 035	525 278, 735 2, 427	56, 152	441 28, 763	8,004	6, 38 78, 54
2 San Francisco bay and rivers 6 Puget sound and Washington	5	· · · · · · · · · · · · · · · · · · ·				·	5
WILLAMETTE, OREGON (SAILLY	NG VESS	ELS).					
Total	10, 037		439		315	700	8, 58
5 Columbia and Willamette rivers 5 Columbia and Willamette rivers 7 Foreign	25 439		439				2
2 San Francisco bay and riversdo	4, 030	 					4, 030
7 Foreign. 5 Columbia and Willamette rivers.	1, 340		•••••				1,340
Do 2 San Francisco bay and rivers.	1, 203 2, 300				315		2, 300
9 Alaska and Bering seado	700			·		700	•••••
· WILLAMETTE. OREGON (AL	LL CRAF	Γ).				-	
Total	554, 532	67, 717	282, 306	56, 152	29, 519	8, 704	110, 13
6 Puget sound and Washington 5 Columbia and Willamette rivers	800						800
Do 2 San Francisco bay and rivers Do 7 Foreign	52, 186 14, 466	50, 652	180				1, 354 14, 466
5 Columbia and Willamette rivers. 6 Puget sound and Washington. Do. 5 Columbia and Willamette rivers. Do. 4 Oregon coast. Do. 7 Foreign.	7, 381 467, 255 2, 427 439	30 17, 035	525 278, 735 2. 427 439	56, 152	28, 763	8,004	6, 38 78, 56
2 San Francisco bay and rivers 6 Puget sound and Washington	5						
Do	4,030 1,340						4, 03 1, 34
7 Foreign 5 Columbia and Willamette rivers	1						_, _,
Do	1, 203 2, 300				i '		88 2, 30

TRAFFIC OPERATIONS—Continued.

TABLE 9.—INTERDISTRICT MOVEMENT (FREIGHT)—Continued.

PUGET SOUND, WASHINGTON (STEAMERS AND UNRIGGED CRAFT).

RICT MOVEMENT.			COMMO	DITIES (IN	TONS).			
То—	Total.	Coal.	Lumber.	Mines and quarries.	Agricul- tural.	Animal products including fish.	All other products.	
	2, 315, 623	4. 187	1, 822, 720	53, 184	46, 236	5, 771	383, 525	
6 Puget sound and Washington 7 Foreign	2, 315, 119 40	3, 883	1, 822, 720	53, 184	46, 236	5, 771	383, 325 40	
5 Columbia and Willamette rivers 4 Oregon coast	100		. .		· · · · · · · · · · · · · · · · · · ·		100 60	
6 Puget sound and Washington	304	304	•					
PUGET SOUND, WASHINGTON	(SAILING V	TESSELS)	•					
	326, 183	58, 153	215, 786	4, 898	8, 322	2, 080	36, 944	
6 Puget sound and Washington	15, 117	119	4, 038 167, 850	4,888	4, 026	181	1,865	
1 Southern California coast	7, 833 38, 968	3, 360 2, 934	4, 473 36, 034					
	760 2, 400		. 760 2,400			<u> </u>		
6 Puget sound and Washington	22. 628	21	175	.: 10			20, 052 2, 000	
9 Alaska and Bering sea	750		.				750	
2 San Francisco bay and rivers	17. 460					923	12,277	
1 Southern California coast	5, 822	5, 822						
6 Puget sound and Washington	910					910		
	58					58		
PUGET SOUND, WASHINGT	ON (ALL C	RAFT).						
	2, 641, 806		1	58, 082	54, 558	7, 851	42),466	
6 Puget sound and Washington	2, 330, 236 208, 759	4, 002 40, 909	1, 826, 758 167, 850	58, 072	50, 262	5, 952	385. 19	
7 Foreign	39,008	2, 934	36, 034				1	
			·'				1	
	760 2, 400		. 760 . 2,400					
6 Puget sound and Washington	22, 628	21		10	2,545		20.	
7 Foreign	4,654	728	175		1,751	ļ	2.	
7 Foreign 9 Alaska and Bering sea 6 Puget sound and Washington	4, 654 750	728	175 		1, 751		2.	
	6 Puget sound and Washington 7 Foreign 5 Columbia and Willamette rivers 4 Oregon coast 6 Puget sound and Washington PUGET SOUND, WASHINGTON 6 Puget sound and Washington 2 San Francisco bay and rivers 1 Southern California coast 7 Foreign 2 San Francisco bay and rivers 7 Foreign 9 Alaska and Bering sea 6 Puget sound and Washington 2 San Francisco bay and rivers 1 Southern California coast 6 Puget sound and Washington 2 San Francisco bay and rivers 1 Southern California coast 6 Puget sound and Washington 2 San Francisco bay and rivers 9 Alaska and Bering sea PUGET SOUND, WASHINGT 6 Puget sound and Washington 2 San Francisco bay and rivers 9 Alaska and Bering sea PUGET SOUND, WASHINGT 6 Puget sound and Washington 2 San Francisco bay and rivers 9 Columbia and Willamette rivers 1 Southern California coast 7 Foreign 5 Columbia and Willamette rivers 4 Oregon coast 2 San Francisco bay and rivers 7 Foreign	Total.	Total. Coal.	Total	To— Total. Coal. Lumber. Mines and quarries. 2. 315. 623	To— Total. Coal. Lumber. Mines and quarries. 2, 315, 623 4, 187 1, 822, 720 53, 184 46, 236 6 Puget sound and Washington 2, 315, 119 3, 883 1, 822, 720 53, 184 46, 236 7 Foreign. 40 5 Columbia and Willamette rivers. 100 60 60 60 60 60 60 60 60 60	Total. Coal. Lumber. Minea and quarries. Coal. Lumber. Lumber. Lumber. Minea and quarries. Coal. Lumber. Lumber. Lural. Including flat. 2.315.623 4.187 1.822,720 53.184 46,236 5.771 6 Puget sound and Washington. 2.315.119 3.883 1.822,720 53.184 46,236 5.771 6 Puget sound and Willamette rivers. 100 60	

TRAFFIC OPERATIONS—Continued.

TABLE 10.—INTERDISTRICT MOVEMENT (MILEAGE)—NUMBER OF MILES COVERED IN THE TRANSPORTATION OF 8,818,363 TONS OF FREIGHT BY THE OPERATING CRAFT OF EACH CUSTOMS DISTRICT, IN THEIR MOVEMENT WITHIN OR BETWEEN CERTAIN TRAFFIC DISTRICTS. (a)

ALL CRAFT.			ORNIA (STEAMERS AND UNRI .FT)—Continued.	IGGED
From— To—	Miles.	From—	То-	Miles.
Total		5 Columbia and Willametterivers.	9 Alaska and Beringsea	24, 88
SAN DIEGO, CALIFORNIA (STEAMERS AND UNRIGGED C	CRAFT).	4 Oregon coast	2 San Francisco bay and rivers 1 Southern California coast.	49, 9 9 1, 54
1 Southern California coast 1 Southern California coast		3 Northern California coast Do	3 Northern California coast 2 San Francisco bay and rivers 1 Southern California coast 7 Foreign	10, 72 170, 50 100, 58
SAN DIEGO, CALIFORNIA (SAILING VESSELS).		2 San Francisco bay and rivers	6 Puget sound and Washington	1, 71 89, 70
Total	15.054	1)0	4 Oregon coast	49, 99 170, 50
!	15, 274	Do	2 San Francisco bay and rivers 1 Southern California coast	1, 637, 42 131, 01
2 San Francisco bay and rivers 7 Foreign	3. 200	Do	7 Foreign	111, 26
4 Southern California coast 1 Southern California coast 7 Foreign	5, 688 3, 418	Do	8 Atlantic ports 9 Alaska and Bering sea.	13, 25 73, 76
1	1	1 Southern California coast	2 San Francisco bay and rivers	131, 01
7 Foreign. 1 Southern California coast 7 Foreign.	1, 000 1, 968	Do		2, 25 16, 69
SAN DIEGO, CAL FORNIA ALL CRAFT).		7 Foreign	6 Puget sound and Washington 5 Columbia and Willamette rivers.	23, 65 25, 48
	·	Do	2 San Francisco bay and rivers	111.26
Total	59, 141	Do	1 Southern California coast 9 Alaska and Bering sea	16, 69 4, 40
2 San Francisco bay and rivers 7 Foreign		9 Alaska and Bering sea	2 San Francisco bay and rivers 9 Alaska and Bering sea	73, 76
1 Southern California coast 1 Southern California coast		Do	9 Alaska and Bering sea	7, 51
Do		SAN FRANCISCO CA	LLIFORNIA (SAILING VESSELS	21
7 Foreign 1 Southern California coast	1,000			").
Do 7 Foreign	1,968	Total		4, 772, 11
WITH MINOR OF THORNES WELL WELL AND AND AND AND AND AND AND AND AND AND	an Ann	6 Puget sound and Washington	6 Puget sound and Washington	72
WILMINGTON, CALIFORNIA (STEAMERS AND UNRIGGED	CKAFT).	Do	5 Columbia and Willamette rivers. 3 Northern California coast	1, 02 1, 42
Total	48, 752	Do	2 San Francisco bay and rivers	310, 22 59, 37
	-	Do	1 Southern California coast 7 Foreign	228, 28 8, 71
4 Oregon coast	1.0	1	-	
1 Southern California coast 4 Oregon coast	17, 305 14, 142	Do	5 Columbia and Willamette rivers. 3 Northern California coast	29 1. 09
		l The	2 San Francisco bay and rivers 1 Southern Galifornia coast	34, 20 12, 26
WILMINGTON CALIFORNIA (SAILING VESSELS).	•		7 Foreign	18. 28 1, 01
Total	26, 436	4 Oregon coast	2 San Francisco bay and rivers 1 Southern California coast.	99, 64 27, 64
6 Puget sound and Washington 1 Southern California coast	3, 820	Do	1 Southern California coast	9, 18
4 Oregon coastdo	· ·	3 Northern California coast	6 Puget sound and Washington 5 Columbia and Willamette rivers.	1, 42
3 Northern California coastdo	4,446	Do	2 San Francisco bay and rivers	1, 09 152, 52
1		Do	1 Southern California coast 7 Foreign	88, 26 41, 89
1 Southern California coastdodo.	7, 370	2 San Francisco bay and rivers	6 Puget sound and Washington	310, 22
WILMINGTON, CALIFORNIA (ALL CRAFT).		Do	5 Columbia and Willamette rivers. 4 Oregon coast	34, 20 99, 64
——————————————————————————————————————		Do	3 Northern California coast 2 San Francisco bay and rivers	152, 52 889, 48
Total	75, 188	Do	Southern California const	3, 47
6 Puget sound and Washington 1 Southern California coast	3, 820	Do	7 Foreign 9 Alaska and Bering sea	625, 69 154, 96
4 Oregon coastdodo		1 Southern California coast	6 Puget sound and Washington	59, 37
-	21, 751	Do	5 Columbia and Willamette rivers 2 San Francisco bay and rivers	12, 26 3, 47
3 Northern California coastdodo	10, 800	D0	Southern California coast	2, 46 42, 2 6
1 Southern California coast do do 4 Oregon coast	21, 512 17, 305	Do	7 Foreign. 9 Alaska and Bering sea	2, 40
		·7 Foreign	6 Puget sound and Washington	228, 28
SAN FRANCISCO, CALIFORNIA (STEAMERS AND UNRI	IGGED	Do	2 San Francisco bay and rivers. 1 Southern California coast	625, 69 42, 26
CRAFT).		Do	7 Foreign 8 Atlantic ports	166, 36 16, 15
Total	3, 207, 096	Do	9 Alaska and Bering sea	2, 75
		8 Atlantic ports	2 San Francisco bay and rivers 7 Foreign	17,00 16,15
6 Puget sound and Washington 6 Puget sound and Washington 5 Columbia and Willamette rivers.	2, 234 3, 420		6 Puget sound and Washington	8, 71
Do	1, 208 89, 706	Do	2 San Francisco bay and rivers	8, 713 154, 96 2, 756
Do 1 Southern California coast	4, 335	Do		

TRAFFIC OPERATIONS—Continued.

TABLE 10.—INTERDISTRICT MOVEMENT (MILEAGE)—Continued.

	CALIFORNIA (ALL CRAFT).		HUMBOLDT, C.	ALIFORNIA (ALL CRAFT).	
From—	То	Miles.	From—	То—	Miles.
1		7, 979, 209	Total		126, 07
Puget sound and Wasnington	6 Puget sound and Washington 5 Columbia and Willamette rivers. 3 Northern California coast	2, 958 4, 440 2, 630	6 Puget sound and Washington. Do	2 San Francisco bay and rivers 1 Southern California coast	4, 60 2, 45
Do	2 San Francisco bay and rivers 1 Southern California coast	399, 928 63, 705	5 Columbia and Willamette rivers	2 San Francisco bay and rivers 1 Southern California coast	55 1, 01
Do	7 Foreign 9 Alaska and Bering sea	228, 285 25, 459		2 San Francisco bay and rivers	3, 03
Columbia and Willametterivers	5 Columbia and Willamette rivers. 3 Northern California coast	298 1, 094	3 Northern California coast	6 Puget sound and Washington 5 Columbia and Willamette rivers.	56 96
Do	2 San Francisco bay and rivers 1 Southern California coast	74, 040 12, 262	Do	3 Northern California coast 2 San Francisco bay and rivers	31, 23 5, 33
Do	7 Foreign 9 Alaska and Bering sea	18, 282 25, 900	Do Do	1 Southern California coast	11, 92 19, 22
Oregon coast	2 San Francisco bay and rivers	149, 643	2 San Francisco bay and rivers	6 Puget sound and Washington	4,600
Do	1 Southern California coast 7 Foreign	29, 188 9, 185	Do	5 Columbia and Willamette rivers. 3 Northern California coast	5.337 5.337
Northern California coast	6 Puget sound and Washington 5 Columbia and Willamette rivers.	1, 422 1, 095	Do		17, 045 17, 045
Do	3 Northern California coast 2 San Francisco bay and rivers	10, 720		7 Foreign	558
Do Do	1 Southern California coast 7 Foreign	188, 849			
San Francisco bay and rivers	6 Puget sound and Washington	399, 929		DREGON, OREGON (STEAMERS A RIGGED CRAFT).	LND
Do	4 Oregon coast	34, 208 149, 644		·	
Do	3 Northern California coast 2 San Francisco bay and rivers	323, 029 2, 526, 889	4 Oregon coast	4 Oregon coast	94.22
Do Do	1 Southern California coast 7 Foreign	134, 485 736, 959		N, OREGON (SAILING VESSELS).	
Do	8 Atlantic ports 9 Alaska and Bering sea	13, 250 228, 730			
Southern California coast	6 Puget sound and Washington	59, 370 12, 262	Total		8,920
Do	5 Columbia and Willamette rivers 2 San Francisco bay and rivers 1 Southern California coast	134, 485 4, 715	4 Oregon coast	2 Sau Francisco bay and rivers 1 Southern California coast	3, 660 1, 600
Do	1 Southern California coast 7 Foreign	58, 956 2, 400	ļ	4 Oregon coast	3,660
·	6 Puget sound and Washington 5 Columbia and Willametterivers	251, 944			
Do	5 Columbia and Willamette rivers 2 San Francisco bay and rivers 1 Southern California coast	25, 480 736, 960 58, 956	SOUTHERN OREG	GON, OREGON (ALL CRAFT).	
Do	7 Foreign	166 363	Total		107, 14
Do	9 Alaska and Bering sea	16, 155 7, 150		4 Oregon coast	98, 22
Atlantic ports	2 San Francisco bay and rivers 7 Foreign	17, 000 16, 155	Do	2 San Francisco bay and rivers 1 Southern California coast	3, 60 1, 64
Alaska and Bering sea	6 Puget sound and Washington 2 San Francisco bay and rivers	8, 715 228, 731	2 San Francisco bay and rivers	4 Oregon coast	3, 66
Do	7 Foreign	2,.750			
			YAQUINA, OREGON (ST	EAMERS AND UNRIGGED CRA	
HUMBOLDT, CALIFORNIA	(STEAMERS AND UNRIGGED	CRAFT).	Total	· ·	68, 15
	•		5 Columbia and Willamette rivers	4 Oregon coast	4, 36
Northern California coast	3 Northern California coast	23, 407	4 Oregon coast	5 Columbia and Willamette rivers. 4 Oregon coast	4, 36
	,		Do	2 San Francisco bay and rivers	15. 96
HUMBOLDT, CALI	FORNIA (SAILING VESSELS).		2 San Francisco bay and rivers	4 Oregon coast	15, 96
Total		102, 663		EAMERS AND UNRIGGED CRAI	- · PT\
Puget sound and Washington	2 San Francisco bay and rivers 1 Southern California coast	4, 600	OREGON, OREGON (SIT		
			Total		276.0
Do	2 San Francisco bay and rivers 1 Southern California coast	555 1, 015	6 Puget sound and Washington .	6 Puget sound and Washington 5 Columbia and Willamette rivers.	79, 96 3, 67
Oregon coast	2 San Francisco bay and rivers	3, 030	Do	4 Oregon coast	9. 0-
Do	6 Puget sound and Washington 5 Columbia and Willamette rivers.	560 985	Do	6 Puget sound and Washington 5 Columbia and Willamette rivers.	3, 6 133, 2
Do	3 Northern California coast 2 San Francisco bay and rivers	7, 830 5, 337	Do	4 Oregon coast 2 San Francisco bay and rivers	6, 2 4, 1
Do	1 Southern California coast 7 Foreign	11, 925 19, 228	Do	1 Southern California coast	7, 3
San Francisco hav and rivers	6 Puget sound and Washington.	4, 600	4 Oregon coast	6 Puget sound and Washington 4 Oregon coast	9, 0 7, 4
Do	5 Columbia and Willamette rivers. 3 Northern California coast	555 5, 337	2 San Francisco bay and rivers	5 Columbia and Willamette rivers.	4, 1
100	7 Foreign	17, 045	Southern California coast	do	7, 3
Foreign	9 Can Propoless has send stone	17, 045			

TRAFFIC OPERATIONS—Continued.

TABLE 10.—INTERDISTRICT MOVEMENT (MILEAGE)—Continued.

Puget sound and Washington Columbia and Willamette rivers. Pregon coast	Miles. 19, 742 8, 350 8, 892 60 189 2, 200 295, 818 88, 331 3, 675 9, 048 3, 675 142, 163 6, 300 4, 170 7, 370	Do. Do. Do. Do. Do. Do. Do. Do. Do. Do.	4 Oregon coast 2 San Francisco bay and rivers. 7 Foreign 6 Puget sound and Washington. 7 Foreign 9 Alaska and Bering sea. 5 Columbia and Willamette rivers. 2 San Francisco bay and rivers. do. N (STEAMERS AND UNRIGGED	
Columbia and Washington Columbia and Willamette rivers. Columbia and Willamette rivers. Columbia and Willamette rivers. Columbia and Bering sea GON (ALL CRAFT). Columbia and Willamette rivers. Columbia and Willamette rivers. Columbia and Willamette rivers. Columbia and Willamette rivers. Columbia and Willamette rivers. Columbia and Willamette rivers. Columbia and Washington Columbia and Willamette rivers. Columbia and Willamette rivers. Columbia and Willamette rivers. Columbia and Willamette rivers. Columbia and Willamette rivers. Columbia and Willamette rivers. Columbia and Willamette rivers. Columbia and Willamette rivers. Columbia and Willamette rivers.	8, 350 8, 892 60 180 2, 200 295, 818 88, 331 3, 675 9, 048 3, 675 142, 163 6, 300 4, 170	Do. Do. Do. Do. 2 San Francisco bay and rivers Do. Do. 7 Foreign Do. 9 Alaska and Bering sea PUGET SOUND, WASHINGTO	5 Columbia and Willametterivers. 4 Oregon coast 2 San Francisco bay and rivers. 7 Foreign 6 Puget sound and Washington 7 Foreign 9 Alaska and Bering sea. 5 Columbia and Willamette rivers. 2 San Francisco bay and riversdo.	991, 21 5, 72 77, 14 5, 50 34, 60 5, 39 3, 10 5, 39 5, 50 3, 10
columbia and Willamette rivers. Dregon coast Columbia and Willamette rivers. Dregon coast Alaska and Bering sea GON (ALL CRAFT). Proget sound and Washington Columbia and Willamette rivers. Dregon coast Columbia and Willamette rivers. Dregon coast Columbia and Willamette rivers. Dregon coast Columbia and Willamette rivers. Dregon coast Columbia and Willamette rivers. Dregon coast Columbia and Washington Columbia and Willamette rivers. Columbia and Willamette rivers. Columbia and Willamette rivers. Columbia and Willamette rivers. Columbia and Willamette rivers. Columbia and Willamette rivers. Columbia and Willamette rivers. Columbia and Willamette rivers. Columbia and Willamette rivers.	8, 892 60 60 180 2, 200 295, 818 88, 331 3, 675 9, 048 142, 163 6, 300 4, 170	Do. Do. Do. Do. 2 San Francisco bay and rivers Do. Do. 7 Foreign Do. 9 Alaska and Bering sea. PUGET SOUND, WASHINGTO	4 Oregon coast 2 San Francisco bay and rivers. 7 Foreign 6 Puget sound and Washington. 7 Foreign 9 Alaska and Bering sea. 5 Columbia and Willamette rivers. 2 San Francisco bay and rivers. do. N (STEAMERS AND UNRIGGED	5, 72 77, 14 5, 50 34, 60 5, 39 3, 10 5, 39 5, 50 3, 10 CRAFT)
Columbia and Willamette rivers- regon coast Maska and Bering sea GON (ALL CRAFT). Columbia and Willamette rivers- regon coast Columbia and Willamette rivers- regon coast Columbia and Willamette rivers- regon coast Columbia and Willamette rivers- columbia and Willamette rivers- columbia and Willamette rivers- columbia coast Couget sound and Washington Columbia and Willamette rivers- couthern California coast Couget sound and Washington Columbia and Willamette rivers- columbia and Willamette rivers- regon coast	295, 818 295, 818 88, 331 3, 675 9, 142, 163 6, 300 4, 170	2 San Francisco bay and rivers Do	7 Foreign 6 Puget sound and Washington 7 Foreign 9 Alaska and Bering sea 5 Columbia and Willamette rivers. 2 San Francisco bay and rivers do ON (STEAMERS AND UNRIGGED	5, 50 34, 60 5, 39 3, 10 5, 39 5, 50 3, 10 CRAFT)
Columbia and Willamette rivers. Dregon coast Alaska and Bering sea GON (ALL CRAFT). Puget sound and Washington Columbia and Willamette rivers. Dregon coast Alaska and Bering sea Puget sound and Washington Columbia and Willamette rivers. Dregon coast Alaska and Willamette rivers. Dregon coast Columbia and Willamette rivers. Dregon coast Countern California coast Countern California coast Columbia and Willamette rivers. Dregon coast	295, 818 295, 818 88, 331 3, 675 9, 048 3, 675 142, 163 6, 300 4, 170	Do	7 Foreign 9 Alaska and Bering sea	5, 39; 3, 10(5, 39; 5, 50(3, 10(CRAFT)
GON (ALL CRAFT). Paget sound and Washington Columbia and Willamette rivers. Paget sound and Washington Columbia and Willamette rivers. Paget sound and Washington an Francisco bay and rivers an Francisco bay and rivers Columbia and Washington Columbia and Willamette rivers. Columbia and Willamette rivers.	2, 200 295, 818 88, 331 3, 675 9, 048 3, 675 142, 163 6, 300 4, 170	7 Foreign 100 9 Alaska and Bering sea PUGET SOUND, WASHINGTO Total	5 Columbia and Willamette rivers. 2 San Francisco bay and riversdodo	5, 39; 5, 50 3, 10 CRAFT)
Puget sound and Washington columbia and Willamette rivers. regon coast Puget sound and Washington columbia and Willamette rivers. regon coast an Francisco bay and rivers. couthern California coast Puget sound and Washington columbia and Willamette rivers. regon coast	88, 331 3, 675 9, 048 3, 675 142, 163 6, 300 4, 170	9 Alaska and Bering sea PUGET SOUND, WASHINGTO Total	ON (STEAMERS AND UNRIGGED	3, 100 CRAFT).
Puget sound and Washington Columbia and Willamette rivers. Puget sound and Washington Columbia and Willamette rivers. Puget sound and Washington an Francisco bay and rivers couthern California coast. Puget sound and Washington Columbia and Willamette rivers. Puget sound and Washington Columbia and Willamette rivers.	88, 331 3, 675 9, 048 3, 675 142, 163 6, 300 4, 170	Total	·——	
Columbia and Willamette rivers. Dregon coast Columbia and Washington Columbia and Willamette rivers. Dregon coast Courtern California coast Couthern California coast Columbia and Willamette rivers. Columbia and Willamette rivers. Columbia and Willamette rivers. Columbia coast	3, 675 9, 048 3, 675 142, 163 6, 300 4, 170	· i		1, 653, 603
Pregon coast Puget sound and Washington Polumbia and Willamette rivers Pregon coast In Francisco bay and rivers In Francisco bay and rivers In Francisco bay and rivers In Francisco bay and rivers Puget sound and Washington In Juget sound and Washington In Juget sound and Willamette rivers In Juget sound and Willamette rivers In Juget sound and Willamette rivers	9, 048 3, 675 142, 163 6, 300 4, 170	· i		1, 053, 008
oregon coast an Francisco bay and rivers outhern California coast outhern California coast outhern California coast outhern California outhern Cal	142, 163 6, 300 4, 170	Do	, o Puget sound and washington	1, 577, 873
an Francisco bay and rivers outhern California coast ruget sound and Washington columbia and Willamette rivers. regon coast	4, 170	l i		838
regon coast		5 Columbia and Willamette rivers Do	5 Columbia and Willamette rivers. 4 Oregon coast	73, 714 340
	9, 048 60	- 1	6 Puget sound and Washington	838
columbia and Willamette rivers.	7, 638 4, 170	PUGET SOUND, WAS	SHINGTON (SAILING VESSELS)	١.
do	7,370		·	
Maska and Bering sea	2, 200	Total		531, 807
do	600	6 Puget sound and Washington . Do	6 Puget sound and Washington 2 San Francisco bay and rivers 1 Southern California coast 7 Foreign	24, 845 124, 105 16, 062
CAMERS AND UNRIGGED C			2 San Francisco bay and rivers 7 Foreign	75, 329 432 11, 733
	1, 346, 979	2 Sun Francisco hav and rivers	6 Puget sound and Washington	124, 108
uget sound and Washington columbia and Willamette rivers. an Francisco bay and rivers	53, 783 18, 624 34, 608	Do Do	7 Foreign 9 Alaska and Bering sea	23, 000 3, 000
		Do	2 San Francisco hav and rivers	75, 329 23, 000
olumbia and Willamette rivers	990, 019	Do	9 Alaska and Bering sea	22, 255 1, 082
oregon coast	5, 720 77, 140	9 Alcoke and Posing see	2 Dorset sound and Washinston	2,000
ouget sound and Washington	34, 608	Do Do	2 San Francisco bay and rivers 9 Alaska and Bering sea	3, 000 2, 500
GON (SAILING VESSELS).		PUGET SOUND, W	VASHINGTON (ALL CRAFT).	
i		Total		2, 185, 410
columbia and Willamette rivers.	1. 200	Do	2 San Francisco bay and rivers	1, 602, 718 124, 105 16, 092
do	5, 500	Do	7 Foreign	76, 167
	5, 393	Do	4 Oregon coast	340
do	3, 100	Do	7 Foreign	11,732
		2 San Francisco bay and rivers Do	6 Puget sound and Washington 7 Foreign	124, 105 23, 000 3, 000
		7 Foreign	6 Puget sound and Washington	76, 167
	1, 377, 379	Do	1 Southern California coast	23, 000 22, 255 1, 082
olumbia and Willamette rivers. an Francisco bay and rivers	53, 783 18, 624 34, 608 1, 215	Alaska and Bering sea Do	6 Puget sound and Washington 2 San Francisco bay and rivers 9 Alaska and Bering sea	2,000 3,000 2,500
	outhern California coast outhern California coast olumbia and Willamette rivers oreign .do .laska and Bering sea olumbia and Willamette rivers an Francisco bay and rivers .do REGON (ALL CRAFT).	18, 624 990, 019 5, 720 77, 140 140	an Francisco bay and rivers. of oreign uget sound and Washington of oreign uget sound and Washington of oreign uget sound and Willamette rivers regon coast uget sound and Washington uget sound and Washington of oreign of outhern California coast of oreign of oreign of oreign of outhern California coast of oreign of outhern California coast of oreign of oreign of outhern California coast of oreign of outhern California coast of oreign of outhern California coast of oreign of outhern California coast of outhern California coast of outhern California coast of outhern California coast of outhern California coast of outhern California coast of outhern California coast of outhern California coast of outhern California coast of outhern California coast of outhern California coast of outhern California coast of outhern California coast of outhern California coast of outhern California coast of outhern California coast	oreign 113,853 7 Foreign 6 Puget sound and Washington 12 San Francisco bay and rivers 15 Southern California coast 1

EARNINGS AND EXPENSES.

TABLE 11.—FINANCIAL ACCOUNT IN GENERAL—GROSS EARNINGS, EXPENSES, AND NET EARNINGS OF ALL OPERATING CRAFT OVER FIVE TONS ON THE PACIFIC COAST IN 1889.

	TO	OTAL ALL CRAFT	•	STEAMERS	AND UNRIGGE	CRAFT.	s	AILING VESSEL	١.
CUSTOMS DISTRICTS.	Gross earnings.	Expenses.	Net earnings.	Gross earnings.	Expenses.	Net earnings.	Gross earnings.	Expenses.	Net earnings.
Total	\$20, 628, 316. 28	\$17, 274, 809. 30	\$3, 353, 506. 98	\$13, 237, 222, 29	\$11, 446, 692, 77	\$1,790,529.52	\$7, 391, 093. 99	\$ 5, 828, 116. 53	\$1,562.977.46
California	14, 548, 861. 36	12, 018, 431. 83	2. 530, 429, 53	8, 224, 496. 76	7, 069, 208. 94	1, 155, 287, 82	6, 324, 364. 60	4, 949, 222. 89	1, 375, 141. 71
San Diego	62, 707. 47	60, 442, 84	2, 264, 63	42, 507. 47	45, 985. 04	a3, 477. 57	20, 200. 00	14, 457. 80	5, 742. 20
Wilmington	91, 689, 68	89, 509. 73	2, 179. 95	64, 406. 14	63, 576. 84	629. 30	27, 283. 54	25, 932. 89	1, 350. 65
San Francisco	14, 191, 341. 93	11, 701, 926. 71	2, 489, 415. 22	8, 015, 094. 94	6, 872, 414, 76	1, 142, 680, 18	6, 176, 246, 99	4, 829, 511. 95	1, 346, 735. 04
Humboldt	203, 122. 28	166, 552, 55	36, 569, 73	102, 488. 21	87, 232. 30	15, 255. 91	100, 634, 07	79, 320. 25	21, 313. 82
Oregon	3, 864, 723. 69	3, 453, 508. 85	411, 214, 84	3. 771, 609. 33	3, 388, 591. 33	383, 018. 00	93. 114. 36	64, 917. 52	23, 196. 84
Southern Oregon	62, 886. 33	48, 341. 36	14, 544. 97	56, 499. 33	42, 405. 36	14, 093. 97	6, 387. 00	5, 936. 00	451.00
Yaquina	119, 227. 63	128, 260. 54	a9, 032. 91	119, 227. 63	128, 260, 54	a9, 032. 91			
Oregon	243, 410. 16	188. 686. 63	54, 723. 53	212, 478, 11	167, 249, 00	45, 229. 11	30, 932. 05	21, 437. 63	9.494.42
Willamette	3, 439, 199, 57	3, 088, 220. 32	350, 979, 25	3, 383, 404, 26	3, 050, 676, 43	332, 727. 83	55, 795. 31	37, 543. 89	18, 251. 4
Washington-Puget sound .	2, 214. 731. 23	1. 802. 868. 62	411, 862, 61	1, 241, 116, 20	988, 892. 50	252, 223. 70	973, 615. 03	813, 976. 12	159, 638. 97

a Deficit.

TRANSPORTATION ON THE PACIFIC COAST.

EARNINGS AND EXPENSES—Continued.

TABLE 12.—ITEMIZED EXPENSE ACCOUNT OF ALL VESSELS REPORTING AND ENGAGED IN THE TRANSPORTATION OF PASSENGERS AND FREIGHT ON THE PACIFIC COAST, SUBDIVIDED INTO THE VARIOUS ITEMS CONSTITUTING RUNNING AND SHORE EXPENSES.

STEAMERS AND SAILING VESSELS, EXCLUSIVE OF FERRYBOATS.

	Number				R	CNNING EXPEN	SES.		
CUSTOMS DISTRICTS.	of vessels.	Tota	al.	Port charges.	Wages.	Provisions.	Current r pairs.	e- Fuel for the steamers	
Total	1,001	\$13, 226,	080. 53	\$292, 085. 09	\$5, 212, C39. 20	\$1,507,183.73	\$1,098,232.	29 \$2, 094, 523.	42 \$3, 021, 416. 80
California	724	8, 783,	83, 424. 68 179, 435. 86		3, 670, 038, 30	1, 095, 267. 48	808, 728.	93 1, 496, 655.	60 1, 533, 298. 51
San Diego	7	9,	035. 85	7.00	4, 143.73	1, 500. 00	1, 572.	80	1,812.32
Wilmington	13	79,	172.08	1, 531. 80	39, 027. 45	11, 473. 08 1, 070, 483. 31	5, 047.	88 15, 107.	90 : 6, 983, 97
San Francisco	685	8, 578,	287, 25	172, 354, 53	3, 559, 877. 97		793, 962.	80 1, 477, 547.	70 1, 504, 060, 94
Humboldt	19	116,	929, 50	5, 542. 53	66, 989, 15	11,811.09	8, 145.	, , ,	
Oregon	132	2, 992,	026. 41	74, 898. 01	859, 531. 59	196, 108. 54	184, 579.	53 419, 920.	30 1, 256, 988, 44
Southern Oregon	13	41,	868. 05	103. 50	29, 484. 00	2, 910, 06	3, 602.	55 4,820.	80 947. 20
Yaquina	7	95,	958. 43	1, 368. 80	36, 153, 31	9, 330, 44	5, 854.	63 22, 703.	00 20, 548. 25
Oregon	47	162,	175.41	1, 650, 00	99, 316. 12	14, 667. 15	11, 576.	81 29, 320.	00 5, 645, 53
Willamette	65	2, 692,	024. 52	71, 775. 71	694, 578. 16	169, 200. 95	163, 545,	74 363, 076,	50 1, 229, 847, 46
Washington—Puget sound	145	1, 450,	629. 44	37, 751. 22	683, 069. 31	215, 807. 71	104, 923.	83 177, 947.	52 231, 129, 85
					SHORE	EXPENSES.			
CUSTOMS DISTRICTS.	Tot	Total.		nissions.	Insurance,	Taxe	offi	e expenses.	Other.
Total	\$1,672	2, 060. 79	*	175, 080, 30	\$542, 938. 0	\$125,0	355. 76	\$210, 130, 26	\$618, 256. 46
California	1, 185	, 713. 91		133, 206. 84	422. 993. 7	93, 3	189. 87	173, 002. 66	363, 120. 81
San Diego		516. 25			270.0	10	21. 25		225, 00
Wilmington	5	436. 50			3, 700, 0	10	313. 25		1, 123, 25
San Francisco	1, 170	691.72	1	132, 331. 12	418, 507. 0	91,3	92.77	173, 002, 66	353, 458. 17
Humboldt	9	069 44		875. 72	516.7	3 1,	362. 60		6, 314. 39
Отедон	295	6, 866. 34		20, 9 20, 40	54, 131. 7	18, 1	95. 61	27, 543, 94	•175, 0 74. 69
Southern Oregon		754. 50			159. (00	124. 50	180.00	
Yaquina	3	, 436. 42			450.0	0 1,0	33. 18		1, 953. 24
Oregon	3	650.91		110.00	1, 985. 7	ro	870. 21	450. CO	235. 00
Willamette	288	, 024 51		20, 810. 40	51, 546, (15, 8	367. 72 i	26, 913. 94	172, 886, 45
Washington—Puget sound	190), 480. 54		20, 953. 06	65, 812. 5	58 14.0	070, 28	9, 583. 66	80, 060, 96

STEAMERS.

	Number	1		R	UNNING EXPEN	SES.		
CUSTOMS DISTRICTS.	of vessels.	Total.	Port charges.	Wages.	Provisions.	Current repairs.	Fuel for the steamers.	Other.
Total	354	\$8, 460, 400, 63	\$135, 921. 09	\$2, 924, 205, 19	\$832, 191. 57	\$613, 703. 33	\$2,094,523.42	\$1, 859, 856. 03·
California	147	1, 726, 952. 38	55, 737, 81	1. 703, 263, 70	516, 875. 06	380, 400. 08	1, 496, 655. 60	574, 020, 13
Wilmington	5	55, 903, 74	222, 25	25, 826. 45	8, 169. 77	2, 152, 13	15, 107. 90	4, 425. 24
San Francisco	136	4, 629, 573, 76	55, 035, 56	1, 655, 683. 25	508, 705. 29	375, 725, 58	1, 477, 547. 70	556, 876. 38
Humboldt	6	41, 474, 88	480.00	21, 754. 00		2, 522. 37	4, 000. 00	12, 718. 51
Огодов	114	2, 939, 381. 60	73, 352 . 52	832, 502. 84	188, 345. 15	182, 709. 82	419, 920. 30	1, 242, 550, 97
Southern Oregon	12	36, 118, 05		25, 984, 00	1, 830. 00	2, 802, 55	4, 820, 80	680. 70
Yaquina	7	95, 958. 43	1, 368. 80	36, 153, 31	9, 330. 44	5, 85 4. 6 3	22, 703. 00	20, 548, 25
()regon	33	150, 964. 89	1, 650. 00	88, 927. 37	13, 917, 15	11, 576, 61	29, 320. 00	5, 573. 76
Willamette	62	2, 656, 340. : 3	70, 333. 72	681, 488. 16	163, 267, 56	162, 476, 03	363, 076. 50	1, 215, 748. 26
Washington-Puget sound	93	794, 066. 65	6, 830. 76	388, 438. 65	126, 971. 36	50, 593, 43	177, 947. 52	43, 284. 93 .

EARNINGS AND EXPENSES—Continued.

TABLE 12.—ITEMIZED EXPENSE ACCOUNT—Continued.

STEAMERS—Continued.

ļ.			SHORE EXP	ENSES.		
CUSTOMS DISTRICTS.	Total.	Commissions,	Insurance.	Taxes.	Office expenses.	Other.
Total	\$1,035,370.82	\$75, 819. 03	\$384, 795. 87	\$72, 799. 12	\$210, 130. 26	\$291, 826. 5
Zalifornia	675, 842. 96	50, 935, 52	309, 627. 00	49, 396, 93	173, 002. 66	92, 880. 8
Wilmington	4.521.95		3, 700. 00	435.00		386. 9
San Francisco	666, 117. 20	50, 935, 52	305, 702. 00	48, 745. 33	173, 002. 66	87, 731. 6
Humboldt	5, 2 03. 81	i	225. 00	216. 60	!	4, 762. 2
)regoli	293, 727. 74	20, 520, 40	52, 931. 70	17, 682. 01	27, 543, 94	175, 049. 6
Southern Oregon	568. 50			388. 50	180.00	
Yaquina	3, 436. 42		450.00	1, 033. 18		1, 953. 2
Oregon	3, 557. 91	110.00	1, 985. 70	802. 21	450, 00	210.0
Willamette	286, 164, 91	20, 410. 40	50, 496, 00	15, 458. 12	26, 913, 94	172, 886. 4
Washington—Puget sound	65, 800. 12	4, 363. 11	22, 237. 17	5, 720. 18	9, 583, 66	23, 896. 0

SAILING VESSELS.

	Number	[R	UNNING EXPEN	SES.		
CUSTOMS DISTRICTS.	of vessels.	Total.	Port charges.	Wages.	Provisions.	Current repairs.	Fuel for the steamers.	Other.
Total	647	\$4, 765, 679. 90	\$156, 164. 00	\$2, 288, 434. 01	\$674 , 992. 16	\$484, 528. 96		\$1, 161, 560. 77
California	577	4, 056, 472, 30	123, 698. 05	1, 966, 774. 60	578, 392, 42	428, 328. 85		959, 278, 38
San Diego	7	9, 035. 85	7.00	4, 143, 73	1, 500. 00	1, 572. 80		1, 812. 32
Wilmington	8	23, 268, 34	1, 309. 55	13, 201. 00	3, 303. 31	2, 895. 75		2, 558.
San Francisco	549	3, 948, 713. 49	117, 318. 97	1, 904, 194, 72	561, 778. 02	418, 237. 22		947, 184, 5
Humboldt	13	75, 454. 62	5. 062. 53	45, 235, 15	11, 811. 09	5, 623. 08	·····	7,722.
Oregon	18	52, 644. 81	1, 545, 49	27, 028, 75	7. 763. 39	1, 869. 71		14, 437. 47
Southern Oregon	1	5, 750. 00	103. 50	3, 500. 00	1, 080. 00	800.00		266, 50
Oregon	1	11, 210, 52	l'	10, 388. 75	750.00			71.77
Willamette	3	35, 684. 29	1, 441, 99	13, 140. 00	5, 933, 39	1. 069. 71		14, 099. 2
Washington—Puget sound	52	656, 562. 79	30, 920, 46	294, 630. 66	88, 836. 35	54, 330. 40		187, 844. 92

		inses.	SHORE EXPE			
Other.	Office expenses.	Taxes.	Insurance.	Commissions.	Total.	CUSTOMS DISTRICTS.
\$326, 429. 92		\$52, 856, 64	\$158, 142. 14	\$99, 261. 27	\$636 , 689. 97	Total
270, 239. 96		43, 992, 94	113, 366, 73	82, 271. 32	509, 870, 95	California
225. 00		21. 25	270.00			San Diego
736. 30		178. 25			914. 55	Wilmington
267, 726. 48		42, 647. 44	112, 805. 00	81, 395. 60	504, 574, 52	San Francisco
1, 552. 18		1, 146. 00	291. 73	875. 72	3. 865, 63	Humboldt
25. 00		513. 60	1, 200. 00	400,00	2, 138. 60	Oregon
•••••		36, 00	150.00		186, 00	Southern Oregon
25.00		68.00		, 	93. 00	Oregon
•••••		409, 60	1. 050 . 0 0	400, 00	1, 859. 6 0	Willamette
56, 164. 9		8, 350. 10	43, 575, 41	16, 589. 95	124, 680. 42	Washington—Puget sound

TABLE 18.—EMPLOYES AND WAGES IN DETAIL—MONTHLY WAGES PAID IN EACH DISTRICT TO ALL GRADES OF EMPLOYES ON VESSELS ENGAGED IN THE TRANSPORTATION OF PASSENGERS AND FREIGHT ON THE PACIFIC COAST IN 1889, EXCLUSIVE OF FERRYBOATS.

STEAMERS AND SAILING VESSELS.

	Num-		TOTAL	•	- - c	APTAIN	rs.	FIRST MATES. THIRI				NL MATES, A Mates, A Tswains.			RKS ANI RSERS.	•	SURGEONS.		
CUSTOMS DISTRICTS.	ber of vessels.	Num- ber.	1	ages per onth.	Num ber.			Num- ber.	Wag per mout	1 1	lum- Wag ber. pe mon			Num- ber.	Wag per mont	er lu		wages per month.	
Total	1,001	10, 396	# 521	, 502. 86	1,001	001 \$95, 175, 97		685	\$39, 57	3. 77	432	\$20,756.	16	189	\$12,65	2. 50	2	\$110.00	
Total steam	354 647	5, 825 4, 571		, 545. 22), 957. 64	1				18, 78 20, 78	p	138 294	7, 556. 13, 200.	!	188	12, 555 100	2. 50	2	110.00	
	FIRST	enginee	B.6.		D ENGIN		PIRE	MEN ANI PASSERS			LME	N AND 8.	L	ооко	cts.	WATCHMEN.			
CUSTOMS DISTRICTS.	Num- ber.	Wage per mont	- 1	Num- ber.	Wa pe mor	r	Num ber.		ages er nth.	Num- ber.	1	Vages per ponth.	Num ber.	٠	Wages per month.		•	Wages per month.	
Total	353	\$35, 79	8. 54	251	\$18,	350. 00	657	7 \$29	, 847. 26	134	#9	, 509. 17	24		, 039. 50	il · - j	60	\$ 6, 70 2. 73	
Total steam	353	35, 79	8. 54	251	18, 650. 00		657	29	, 847. 26	128 6	9	0, 204. 17 305. 00	19		844. 50 195. 00	1	53 7	6, 407. 78 295. 00	
	COOKS					BSISTA? MEN, A? HERS.			SEAME	N.			HANDS RTERS		i		AND	WATER 8.	
CUSTOMS DISTRICTS.	Num- ber.	l p	ages er nth.		Num- ber. Wag per mont		r	her.		Wages per month.		Num- ber.	1	ages per onth.		um- er.		Vages per ionth.	
Total	726	\$35	, 339. 4	5	393	\$10,	952. 28	3, 33	1 \$127,817.		7, 817. 33		\$ 3	8, 344.	25	172	1	\$ 8, 0 5 3. 3	
Total steam Total sail	296 430	,	, 544. 4 , 795. 0	1.	267 126		372. 28 580. 00	80 2, 53		35, 090. 1 92, 727. 2	1.	939	3	38, 344. 25		172		8, 053. 87	
		DS AND CEEPERS.	STORE	-	WAI	rers.			вочя			CHAMBE STEW	RMAID		•	CAR	PENTI	IRS.	
CUSTOMS DISTRICTS.	Num- ber.	l p	ages er nth.	Nu be			- 11	Num- ber.	i	Wages per nonth.	- <u> </u> -	Num- ber.	1	ages per onth.		um- er.	i	Vages per lonth.	
Total	192	\$ \$9	, 440. 0	- - 0	455	\$11,6	812. 58	163	3	\$ 3, 858. 0	0 -	18		\$445.	00	119		\$ 5, 825. 00	
Total steam	177		, 870. 0	- (1	455	11, 0	812. 58	144		3, 517. 0		18		445.	00	32	- =	1, 670. 00	
Total sail	15		570.0	₩				2	' .	341.0	٠ II	•••••	• • • • • • •	• • • • • •	····).	87		4, 155. 00	

EARNINGS AND EXPENSES—Continued.

TABLE 13.—EMPLOYES AND WAGES IN DETAIL—Continued.

STEAMERS.

	Num-		IATOI	L. .	CAI	PTAINS.		FIRST	MATES	. † тн	BECOND IRD MA BOATSV	MATES, TES, AN VAINS.	no		RKS AND RSERS.	 	URGEONS.
CUSTOMS DISTRICTS.	ber of vessels	Num- ber.		Vages per ionth.	Num- ber.	Wages per mouth.		Vum- ber.	Wage per mont	- 1 - 1 h	um- er.	Wages per month.	11	um- er.	Wage per month	ho	Wage r. wonth
Total	354	5, 825	\$31	1, 545. 22	354	841, 271. 4	6	286	\$18, 783	. 87	138	\$ 7, 5 56, 1	6	188	\$ 12, 5 52.	. 50	2 \$110.0
Total for California	· 147	3,342	18	2, 278. 16	147	19, 756. 3	0	128	9, 684	. 37	108	6, 025, 0	00	89	6, 421	. 50	2 110,0
Total for Oregon	114	1,738		7, 698. 21	114	12, 288. 5	-1	84	5, 062	- 4	27	1, 431. 1	11	66	4, 166		
Total for Washington	93	745	4	1, 568. 85	93	9, 226, 6	6	74	4, 037	. 50	3	100.0	ю.	33	1, 965	. 00	• • • • • • • • • • • • • • • • • • • •
California	147	3,342	18	2, 278. 16	147	19, 756. 3	0	128	9, 684	. 37	108	6, 025. (ю	89	6, <u>421</u> .	. 50	2 110.0
Wilmington	5	49		3, 060, 20	5	600.3	_ -	 3	101	.87	2	105. 0		1	54	.00	
San Francisco	136	3, 270		3, 060, 20	136	18, 710, 0	-	123	9, 417		106	5, 920, 0		88	6, 367		110.0
Humboldt	6	23		1, 292, 00	6	446.0		2		.60					0,001		
Oregon	114	4, 738	8	7, 698. 21	114	12. 288. 5	0 ;	84	5, 062	2.00	27	1. 431. 1	6	66	4, 166	.00	
Southern Oregon	12	42		2, 717. 00	12	980. 0	_	'		. 00	:-		···	1	100.	-	
Yaquina	7	60		2, 717.00 3, 250.00	7	615. 0		3		.00	1	60.0	M :	1		00	1
Oregon	33	168		0, 168, 82	33	2, 892, 5	- 1	20	1.030		5	241.6	- 1	5	335.		
Willamette	62	1,468		1, 562. 39		7, 801. 0		59	3, 752	1	21	1, 129. 5	il	59	3, 656	1	
Washington—Puget sound	93	745	4	1, 568. 85		9, 226. 6	8	74	4, 037	.50	3	100.0	0	33	1, 965	.00	
CUSTOMS DISTRICTS.	FIRST	ENGINEE	RS.		ENGINES AND ENGINEE	FI		N AND Lesers			LMEN A	AND	LO	okou	TS.	₩A1	CHNES.
CUSTOMS DISTRICTS.	Num- ber.	Wage per montl	i	Num-	Wage per month	ha	m- r.	Wa p mor	er i	Num- ber.	Wa; pe mon	T	Num- ber.	1	ages per onth.	Num- ber.	Wages per month.
Total	353	\$35, 79	8. 54	251	\$18,65). 00	357	\$ 29,	847. 26	128	\$9, 20	14. 17	19	1	\$844. 50	153	\$6, 407.77
Total for California	146	16, 33	8. 22	155	12, 46	2. 50 3	195	18.	589. 46	91	7. 05	4. 17	13		544, 50	73	8, 147, 73
Total for Oregon	114	11, 39		65	4, 32		91		262. 62	33	1 '	00.00	6		300.00	57	2,320.00
Total for Washington	93	8, 07	0. 16	31	1, 86	i. 00	71	2,	995. 18	4	25	50.00 .				· 23	940.6
California	146	16, 33	8. 22	155	12, 46	2. 50	395	18,	589. 46	91	7, 05	54. 17	13		544, 50	73	3, 147. 7
Wilmington	5	54	6. 72 ⁻	1	94	0.00	4		156.09	1	4	15.00 .		1			122.73
San Francisco	135	15, 36		152	12, 29	2.50	191	18,	433. 37	90		9. 17	13		544. 50	71	8, 025.0
Humboldt	6	42	8, 00	2	8	0.00	-				ļ		· • · · · · ·	ļ			·····
Oregon	114	11, 39	0. 16	65	4, 32	2. 50	191	8,	262 . 62	33	1,90	0.00	6		300.00	57	2,330.0
Southern Oregon	12	92	5. 00	2	103	5. 00	1		50.00			ji-					40.0
Southern Oregon			1	1		-1				1	1	112		1		_	1
Yaquina	7	50	5.00 !	3	210	0.00	7		310.00	2	8	10.00					
•	7 33	50: 2, 679		3 6		0. 00 · 2. 50	6		310.00 272.53	2	8	0.00		 .j	•••••	3	120.0

1, 865. 00

TABLE 18.—EMPLOYÉS AND WAGES IN DETAIL—Continued.

STEAMERS-Continued.

	COOKS A	ND BAKERS.	PANTRY	ASSISTANTS, MEN, AND CHEES.	28.	AMEN.	DECK F	ands and eters.		ND WATER DERS.
CUSTOMS DISTRICTS.	Num- ber.	Wages per month.	Num- ber.	Wages per month.	Num- ber.	Wages per month.	Num- ber.	Wages per month.	Num- ber.	Wages per . month.
Total	296	\$14, 544. 45	267	\$8, 372. 28	800	\$35, 090. 10	939	\$ 38, 344. 25	172	\$8 , 053. 87
Total for California	141	7, 786, 78	162	5, 194, 78	659	29, 250.00	458	19, 202, 40	123	5, 863. 37
Total for Oregon	84	3, 660. 17	84	2, 650. 00	124	5, 205. 00	829	18, 257. 60	48	2, 150. 00
Total for Washington	71	3, 097. 50	21	527. 50	17	6 35. 10	152	5, 884. 25	1	40.00
California	141	7, 786. 78	162	5, 194. 78	659	29, 250. 00	458	19, 202. 40	123	5, 863. 37
Wilmington	4	212, 78	1	34.86	4	180.00	6	267.40	4	203. 37
San Francisco	137	7, 574. 00	161	5, 159. 92	655	29, 070. 00	447	18, 755. 00	117	5, 575, 00
Humboldt							5	180.00	2	85.00
Oregon	84	3, 660. 17	84	2, 650. 00	124	5, 205. 00	329	13, 257. 60	48	2, 150. 00
Southern Oregon	1	26.00					10	401.00		
Yaquina	4	170.00	5	215. 00	6	270.00	3	130. 00	8	135. 00
Oregon	12	465.00	1	25. 00	11	415.00	25	1,045.50	1	85.00
Willamette	67	2, 999. 17	78	2, 410. 00	107	4, 520. 00	291	11, 681 . 10	44	1, 980. 00
Washington-Puget sound	71	3, 097. 50	21	527.50	17	6 35. 10	152	5, 884. 25	1	40.00
	STEWARD	B AND STORE-	WA	liters.	В	ovs.		RMAIDS AND ARDESSES.	CARP	ENTERS.
CUSTOMS DISTRICTS.	Num- ber.	Wages	Num- ber.	Wages per month.	Num- ber.	Wages per month.	Num- ber.	Wages per month.	Num- ber.	Wages per month.
		month.	. .	шопти.	11 1	1			1 1	
Total	177	#8, 870. 00	455	\$11, 612. 58	140	\$3,517.00	18	\$445.00	82	\$1,670.00
•					140	\$3,517.00 1,545.00	18	\$445. 00 290. 00	82	
Total Total for California Total for Oregon	177	\$8, 870. 00	455	\$11, 612. 58						1, 320. 00
Total for California	177	\$8, 870. 00 5, 242. 00	455	\$11, 612. 58 6, 450. 08	61	1, 545. 00	12	290. 00	25	1, 320. 00 300. 00
Total for California Total for Oregon	177 104 56	\$8, 870. 00 5, 242. 00 2, 763. 00	455 250 168	\$11, 612. 58 6, 450. 08 4, 217. 50	61 76	1,545.00 1,897.00	12	290. 00	25 6	1, 820. 00 300. 00 50. 00
Total for California Total for Oregon Total for Washington	177 104 56 17	\$8, 870. 00 5, 242. 00 2, 763. 00 865. 00	250 168 37	\$11, 612. 58 6, 450. 08 4, 217. 50 945. 00	61 76 3	1, 545. 00 1, 897. 00 75. 00	12 6	290. 00 155. 00	25 6 1	1, 820. 00 300. 00 50. 00
Total for California. Total for Oregon Total for Washington California	177 104 56 17	\$8, 870, 00 5, 242, 00 2, 763, 00 865, 00 5, 242, 00	250 168 37 250	\$11, 612.58 6, 450.08 4, 217.50 945.00 6, 450.08	61 76 3 61	1, 545. 00 1, 897. 00 75. 00 1, 545. 00	12 6	290. 00 155. 00	25 6 1	1, 320. 00 300. 00 50. 00 1, 320. 00
Total for California Total for Oregon Total for Washington California Wilmington	177 104 56 17 104	\$8, 870, 00 5, 242, 00 2, 763, 00 865, 00 5, 242, 00 90, 00	250 168 37 250	\$11, 612. 58 6, 450. 08 4, 217. 50 945. 00 6, 450. 08 140. 08	61 76 3 61	1, 545. 00 1, 897. 00 75. 00 1, 545. 00	12 6	290. 00 155. 00 290. 00	25 6 1 25	\$1, 670. 00 1, 320. 00 300. 00 50. 00 1, 320. 00 1, 320. 00
Total for California. Total for Oregon Total for Washington California Wilmington San Francisco	177 104 56 17 104 104 11 108	\$8, 870, 00 5, 242, 00 2, 763, 00 865, 00 5, 242, 00 90, 00	250 168 37 250	\$11, 612. 58 6, 450. 08 4, 217. 50 945. 00 6, 450. 08 140. 08	61 76 3 61	1, 545. 00 1, 897. 00 75. 00 1, 545. 00	12 6	290. 00 155. 00 290. 00	25 6 1 25	1, 320. 00 300. 00 50. 00 1, 320. 00
Total for California. Total for Oregon Total for Washington California Wilmington San Francisco Humboldt	177 104 56 17 104 1 108	\$8, 870. 00 5, 242. 00 2, 763. 00 885. 00 5, 242. 00 90. 00 5, 152. 00	455 250 168 37 250 4 246	\$11, 612. 58 6, 450. 08 4, 217. 50 945. 00 6, 450. 08 140. 08 6, 310. 00	61 76 3 61 1 60	1, 545. 00 1, 897. 00 75. 00 1, 545. 00 20. 00 1, 525. 00	12 6 12	290. 00 155. 00 290. 00	25 6 1 25	1, 320. 00 300. 00 50. 00 1, 320. 00
Total for California. Total for Oregon Total for Washington California Wilmington San Francisco Humboldt Oregon Southern Oregon Yaquina	177 104 56 17 104 1 108	\$8, 870. 00 5, 242. 00 2, 763. 00 865. 00 5, 242. 00 90. 00 5, 152. 00 2, 763. 00	455 250 168 37 250 4 246	\$11, 612. 58 6, 450, 08 4, 217. 50 945. 00 6, 450. 08 140. 08 6, 310. 00 4, 217. 50	61 76 3 61 1 60	1, 545. 00 1, 897. 00 75. 00 1, 545. 00 20. 00 1, 525. 00	12 6 12	290. 00 155. 00 290. 00	25 6 1 25 25	1, 320. 00 300. 00 50. 00 1, 320. 00 1, 320. 00 300. 00
Total for California. Total for Oregon Total for Washington California Wilmington San Francisco Humboldt Oregon Southern Oregon Yaquina Oregon	177 104 56 17 104 1 108	\$8, 870. 00 5, 242. 00 2, 763. 00 865. 00 5, 242. 00 90. 00 5, 152. 00 2, 763. 00 75. 00 170. 00	455 250 168 37 250 4 246 168	\$11, 612. 58 6, 450. 08 4, 217. 50 945. 00 6, 450. 08 140. 08 6, 310. 00 4, 217. 50 125. 00 25. 00	61 76 3 61 1 60	1, 545. 00 1, 897. 00 75. 00 1, 545. 00 20. 00 1, 525. 00 1, 897. 00	12 6 	290. 00 155. 00 290. 00 290. 00 155. 00	25 6 1 25 25	1, 320. 00 300. 00 50. 00 1, 320. 00 300. 00 50. 00 50. 00
Total for California. Total for Oregon Total for Washington California Wilmington San Francisco Humboldt Oregon Southern Oregon Yaquina	177 104 56 17 104 1 108	\$8, 870. 00 5, 242. 00 2, 763. 00 865. 00 5, 242. 00 90. 00 5, 152. 00 2, 763. 00	455 250 168 37 250 4 246	\$11, 612. 58 6, 450, 08 4, 217. 50 945. 00 6, 450. 08 140. 08 6, 310. 00 4, 217. 50	61 76 3 61 1 60	1, 545. 00 1, 897. 00 75. 00 1, 545. 00 20. 00 1, 525. 00	12 6 12	290. 00 155. 00 290. 00 290. 00	25 6 1 25 25	1, 320. 00 300. 00 50. 00 1, 320. 00

TRAN-Pt. 2-14

TABLE 13.—EMPLOYÉS AND WAGES IN DETAIL—Continued.

SAILING VESSELS.

CUSTOMS DISTRICTS.	Num- ber of	: 1	TOTAL.	CA		Firs	T MATES.	THIRD	ND MATES, MATES, ANI ITSWALKS.		PUREERS.	D	SCE	CB (18)
	vessels.	Num- ber.	Wages per month.	Num- ber.	Wages 1 er month.	Num- ber.	Wages per month.	Num- ber.	Wages per month.	Num ber		pes r th.	Sun- ber.	Wag per
Total	647	4, 571	\$209, 957. 64	647	\$53, 904. 51	299	\$20, 789. 9 0	294	\$13, 200. 0	·	1 \$10	0.00		
Total for California	577	3,848	178, 274. 43	577	47, 942, 40	339	17. 657. 40	242	10. 880. 0		1 10	0.00		
Total for Oregon	18	89	2, 950, 71	18	1, 197, 11	10	492.50	2	90.0	·			·	· · · · · · ·
Total for Washington	52	654	28. 732. 50	52	4, 765, 00	50	2, 640, 00	50	2, 230. 0	·	· · · · · · · · · · · · · · · · · · ·		· • • • • • • • • • • • • • • • • • • •	·'- • • · ·
California	577	3, 848	178, 274. 43	577	47. 942. 40	339	17. 657. 40	212	10, 880. 0	•	1 10	A		
San Diego	7	20	892. 75	7	405.00	2	65.00				-:			.1
Wilmington	5	29	1, 359, 88	8	515.00	2	105.00	2	90.0	·				
San Francisco	549	3, 699	171, 407. 00	549	45, 840, 00	323	16. 845. 00	228	10. 265. 0	· ·	1 100	. 6 0 .		ļ
Humboldt	13	100	4, 614. 80	13	1, 182. 40	12	602. 40	12	525. 0	j		·· -	•	<u> </u>
Oregon	18	69	2, 950. 71	18	1. 197. 11	10	492_50	2	90.00	·		-		
Southern Oregon	1	7	260.00	1	100,00	1	50.00							ļ
Oregon	14	: 30	1, 415. 71	14	797.11	7	332.50		. .	;		1-		
Willamette	3	. 32 i	1, 175. 00	3	300.00	2	110,00	2	90.0)				ļ
Washington—Puget sound	52	654	28, 732. 5 0	52	4, 765. 00	50	2, 640. 00	50	2, 23 0. 0	·	; 		••••	ļ
	PIRST	Engin er i	28.	ENGINEE AND D ENGINE	, rimi	MEN AND PASSERS		PILO	EN AND	Looi	OCTS.	•	ATCE	MES.
CUSTOMS DISTRICTS.	Num- ber.	Wage per month	Num.	Wage per mont	, Num			um-	Wages per month.	Num- ber.	Wages per month.	Num ber.		A ages per pontà
Total				;				6	\$ 30 5 . 00	5	\$195. 60		7	\$295.
Total for California		,— — ·							305.00	5	195.00	: -	- <u>-</u>	296.0
Total for Oregon				1									-	
Total for Washington				1	н									
California	' !				ı [,]			6	305. 00	5	195.00	;	7	296.0
San Diego	;				-		-			1.	30,00			
Wilmington	,			1										
San Francisco	,							6	305.00	4	165.00		,	295. 0
Humboldt								!		······································			· · · · · · · · · · · · · · · · · · ·	
Oregon	 	·	. .			: 								
	ļ								<u> </u> -		- ¦		. —	
Southorn Oncorn			• • • • • • • • • • • • •				•••••••	• • • • • • • •						•••••
Southern Oregon			!1											
Oregon			••••				• • • • • • • • • • • • • • • • • • • •	···· i				•••••	· · : · · · ·	••••
•							··············							•••••
Oregon		 									· · · · · · · · · · · · · · · · · · ·			

TABLE 13.—EMPLOYES AND WAGES IN DETAIL—Continued.

SAILING VESSELS-Continued.

	COOKS A	ND BAKERS.	PANTRY	ASSISTANTS, MEN, AND CHERS.	SE.	AMEN.		HANDS AND ORTERS.		AND WATER NDERS.
CUSTOMS DISTRICTS.	Num- ber.	Wages per month.	Num- ber.	Wages per month.	Num- ber.	Wages per month.	Num- ber.	Wages per month.	Num- ber.	Wages per month.
Total	430	\$20,795.00	126	\$2, 580. 00	2, 531	\$ 92, 727. 23				
Total for California	372	18, 070, 00	79	1. 655. 00	2, 126	77, 503, 63				
Total for Oregon	6	250. 00	2	45.00	27	751. 10	1			
Total for Washington	52	2, 475. 00	45	880.06	378 :	14, 472, 50	·		ļ	· · · · · · · · · · · · · · · · · · ·
California	372	18, 070, 00	79	1, 655. 00	2, 126	77, 503. 6 3	ļ	! !	 	
San Diego	4	150.00			6	242. 75				
Wilmington	3 j	15J. 00			14	499.88				
San Francisco	354	17, 235, 00	79	1, 655. 00	2,054	74, 991. 00				
Humboldt	11	535. 00			52	1, 770. 00	<u>.</u>			
Oregon	6	250. 00	2	45. 0 ა	27	751. 10	İ	·		
Southern Oregon	1	50,00			4	160.00	i	1		-
Oregon	3	120, 00			6	166. 10	· · · · · · · · · · · · · · · · · · ·		,	
Willamette	2	80. 00	2	45. 00	17	425. 00	,	1		
Washington—Puget sound	52	2, 475, 00	45	880. 00	378	14, 472. 50		' 		· · · · · · · · · · · · · · · · · · ·
							1			,
	STEWARDS KE	AND STORE- EPERS.	WA	ITERS.	В	oys.	CHAMBE STEW	RMAIDS AND ARDESSES.	CARI	PENTERS.
CUSTOMS DISTRICTS.	Num- ber.	Wages per month.	Num- ber.	Wages per mouth.	Num- ber.	Wages per month.	Num- ber.	Wages per month.	Num- ber.	Wages per month.
CUSTOMS DISTRICTS.	Num-	Wages	Num-	Wages	Num-	Wages per	Num-	Wages	Num-	Wages per month.
Total	Num- ber.	Wages per month.	Num-	Wages	Num- ber.	Wages per month.	Num-	Wages	Num- ber.	Wages per month.
	Number.	Wages per month.	Num-	Wages	Number.	Wages per month.	Num-	Wages	Number.	Wages per month.
Total	Number.	Wages per month.	Num-	Wages	Number.	Wages per month.	Num-	Wages	Num- ber. 87	Wages per month. \$4,155.0 2,805.0 80.0
Total Total for California Total for Oregon Total for Washington	Number.	Wages per month.	Num-	Wages	Number.	Wages per month.	Num-	Wages	Number. 87	Wages per month. \$4, 155.0 2, 805.0 80.0 1, 270.0
Total	Number.	Wages per month. \$570.00	Num-	Wages	Number. 23 22 1	Wages per month. \$341.00 331.00 10.00	Num-	Wages	Num- ber. 87 58 2 27	Wages per month. \$4, 155.0 2, 805.0 80.0 1, 270.0
Total Total for California Total for Oregon Total for Washington California	Number. 15 14 1	Wages per month. \$570.00	Num-	Wages	Number. 23 22 1	Wages per month. \$341.00 331.00 10.00	Num-	Wages	Num- ber. 87 58 2 27	Wages per month. \$4, 155.0 2, 805.0 80.0 1, 270.0
Total Total for California Total for Oregon Total for Washington California San Diego Wilmington	Number. 15 14 1 14	Wages per month. \$570.00	Num-	Wages	Number. 23 22 1	Wages per month. \$341.00 331.00 10.00	Num-	Wages	Number. 87 58 2 27 58	Wages per month. \$4, 155.0 2, 805.0 80.0 1, 270.0 2, 805.0
Total Total for California Total for Oregon Total for Washington California	Number. 15 14 1	Wages per month. \$570.00 535.00 355.00	Num-	Wages	Number. 23 22 1 1 222	Wages per month. \$341.00 331.00 331.00	Num-	Wages	Num- ber. 87 58 2 27	Wages per month. \$4, 155.0 2, 805.0 80.0 1, 270.0 2, 805.0
Total	Number. 15 14 1 14	Wages per month. \$570.00 535.00 355.00	Num-	Wages	Number. 23 22 1 1 222	Wages per month. \$341.00 331.00 331.00	Num-	Wages per month.	Number. 87 58 2 27 58	Wages per month. \$4, 155.0 2, 805.0 80.0 1, 270.0 2, 805.0
Total	Number. 15 14 1 14	Wages per month. \$570.00 535.00 35.00	Num-	Wages	Number. 23 22 1 22 22 22 22	Wages per month. \$341.00 331.00 10.00 331.00	Number.	Wages per month.	Number. 87 58 2 27 58 58	Wages per month. \$4, 155.0 2, 805.0 80.0 1, 270.0 2, 805.0
Total Total for California. Total for Oregon Total for Washington California. San Diego Wilmington San Francisco Humboldt Oregon Southern Oregon	Number. 15 14 1 14	Wages per month. \$570.00 535.00 35.00	Num-	Wages	Number. 23 22 1 22 22 22 22	Wages per month. \$341.00 331.00 10.00 331.00	Number.	Wages per month.	Number. 87 58 2 27 58 58	Wages per month. \$4, 155.0 2, 805.0 80.0 1, 270.0 2, 805.0
Total Total for California Total for Oregon Total for Washington California San Diego Wilmington San Francisco Humboldt Oregon	Number. 15 14 1 14	Wages per month. \$570.00 535.00 35.00	Num-	Wages	Number. 23 22 1 22 22 22 22	Wages per month. \$341.00 331.00 10.00 331.00	Number.	Wages per month.	Number. 87 58 2 27 58 58	Wages per

EARNINGS AND EXPENSES—Continued.

TABLE 13.—EMPLOYÉS AND WAGES IN DETAIL—Continued. SAILING VESSELS.

	Num-	,	TOTAL.		CAI	PTAINS.	PIRS	T MATES.	THIRD	ND MATES, AND MATES, AND MATES, AND MATES, AND MATES, AND MATES		CLERKS A		SUR	GEONS.
CUSTOMS DISTRICTS.	ber of vessels.	Num- ber.	Wa _i	er	Num- ber.	Wages ner month.	Num- ber.	Wages per month.	Num- ber.	Wage per month	11 -11	m p	ages ber nth.	Num- ber.	
Total	647	4, 571	\$209,	957. 64	647	\$53, 904. 51	399	\$20, 789. 90	294	\$13, 200.	00	1 \$1	100.00		
Total for California	577	3, 848	178	274. 43	577	47, 942, 40	339	17. 657. 40	242	10, 880.	00	1 1	100.00		
Total for Orogon	1 '	69	•	950. 71	18	1, 197. 11	Di .	492.50	11	1	- 11	- 1			
Total for Washington	1	654		732. 50	52	4, 765. 00	11	2, 640. 00	50	2, 230.	00				
alifornia	577	3,848	178, 3	274. 4 3	577	47, 942, 40	339	17, 657. 40	212	10, 880.	00	1 1	100.00		.i
San Diego	7	20		892. 75	7	405. 00	2	65, 00	ļ	<u> </u>			;		·
Wilmington		29	1	359. 88	8	515.00	_	105.00			,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,			·	1
San Francisco		3,699		407.00	549	45, 840, 00	_	16, 885, 00		10, 265.	11	1 1	100.00		
Humboldt	13	100		614. 80	13	1, 182. 40	12	602. 40	11	1	li li				
regon	. 18	69	2.1	950. 71	18	1, 197, 11	10	492.50	2	90,	00				
•	I	7		360. 00		100, 00	-	50.00		-	- -				-
Southern Oregon	1	30		300.00 415.71	1 14	797.11	11	332.50	.1	1					
Oregon	3	30	,	175. 00	3	300.00	11	110.00	11	90.					1
w mamerie		02		175.00		. 300.00	-	110.00	`	50.			;		1
Vashington—Puget sound	. 52	654	1	732. 50	52 ENGINE	4, 765. 00	<u>li</u>	2, 640. 00	il	1	00	<u> </u>			1
	FIRST	BNGINEE			AND ENGINEE	FIR	PASSER:	s.	WHEELM		LO	okouts.		WATCI	HMEN.
CUSTOMS DISTRICTS.	Num- ber.	Wage per mont	. •	Num- ber.	Wage		100			;			J}		Wage
	1	ļ	Δ.		per mont	. Nun	4. 1		Lum.	Wages per month.	Num- ber.	Wages per montb.	7 30	er.	per
Total					mont	h. ber	4. 1	per 📑	Lum.	per		per	be		per monti
Total for California			=		mönt	h. ber	4. 1	per 📑	ber.	per month.	ber.	per month.	bi	er.	per monti
			=		mönt	h. ber	4. 1	per 📑	ber.	per month. \$305.00	ber. 5	per month.	bi	7 -	per monti
Total for California	-		=		mont	h. ber	4. 1	per ^	ber.	per month. \$305.00	ber. 5	per month.	bi	7 -	per monti
Total for California Total for Oregon					mônt	h. ber	4. 1	per ^	ber.	per month. \$305.00	ber. 5	per month.	00 be	7 -	per monti
Total for California					mont	h. ber	In the second	per ^	6 6	permonth. \$305.00	5 5	\$195. 6	00 be	7 7 7	per monti
Total for California					mont	h. ber	In the second	per ^	6 6	per month. \$305.00 305.00	5 5 5 1	\$195. 6 195. 6 20. 6	000 State	7 7 7	per monti
Total for California. Total for Oregon. Total for Washington alifornia. San Diego Wilmington San Francisco					mont	h. ber	In the second	per ^	6 6	permonth. \$305.00	5 5 5	\$195. (000 State	7 7 7	per mont \$29 29
Total for California					mont	h. ber	In the second	per ^	6 6	per month. \$305.00 305.00	5 5 5 1	\$195. 6 195. 6 20. 6	000 State	7 7 7	per mont \$290
Total for California Total for Oregon Total for Washington alifornia San Diego Wilmington Sau Francisco Humboldt					mont	h. ber	In the second	per onth.	6 6 6 6	per month. \$305.00 305.00	5 5 5 1	\$195. 6 195. 6 20. 6	00 00 00 00 00 00 00 00 00 00 00 00 00	7 7 7	per mont \$29 29
Total for California. Total for Oregon. Total for Washington alifornia. San Diego Wilmington Sau Francisco					mont	h. ber	In the second	per onth.	6 6 6 6	per month. \$305.00 \$305.00 \$305.00	5 5 5 1	\$195. 6 195. 6 196. 6	00 00 00 00 00 00 00 00 00 00 00 00 00	7 7 7	per monti
Total for California Total for Oregon Total for Washington alifornia San Diego Wilmington Sau Francisco Humboldt					mont	h. ber	In the second	per onth.	6 6 6 6	per month. \$305.00 \$305.00 \$305.00	5 5 5 1 4	\$195. 6 195. 6 196. 6	00 00 00 00 00 00 00 00 00 00 00 00 00	7 7 7	per mont \$290

TABLE 13.—EMPLOYES AND WAGES IN DETAIL—Continued.

SAILING VESSELS-Continued.

	COOKS A	O BAKERS.	PANTRY	SSISTANTS, MEN, AND CHERS.	SEA	AMEN.		HANDS AND RTERS.		AND WATER DERS.
CUSTOMS DISTRICTS.	Num- ber.	Wages per month.	Num- ber.	Wages per month.	Num- ber.	Wages per month.	Num- ber.	Wages per month.	Num- ber.	Wages per month.
Total	430	\$20, 795. 00	126	\$2, 580. 00	2, 531	\$92, 727. 23				
Total for California	372	18, 070, 00	79	1, 655, 00	2, 126	77, 503, 63			:	
Total for Oregon	6	250.00	2	45.00	27	751. 10				
Total for Washington	52	2, 475. 00	45	880.06	378	14, 472. 50	:			· · · · · · · · · · · · · · · · · · ·
alifornia	372	18, 070. 00	79	1, 655. 00	2, 126	77, 503. 63				· · · · · · · · · · · · · · · · · · ·
San Diego	4	150.00	-		6	242. 75				· · · · · · · · · · · · · · · · · · ·
Wilmington	3	15⊍. 00	 -		14	499. 88				.
San Francisco	354	17, 235. 00	79	1, 655. 00	2, 054	74, 991. 00				
Humboldt	11	535. 00			52	1, 770. 00				· · · · · · · · · · · · · · · · · · ·
regon	6	250. 00	2	45. 0 0	27	751. 10				
Southern Oregon	1	50, 00	-		4	160.00				
Oregon	3	120.00			6	166. 10				
Willamette	2	80.00	2	45. 00	17	425. 00		<u> </u>		• • • • • • • • • • • • • • • • • • • •
Vashington—Puget sound	52	2, 475. 00	45	880.00	378	14, 472. 50			· · · · · · · · · · · ·	· • • • • • • • • • • • • • • • • • • •
		AND STORE-	WAI	TERS.	В	oys.		RMAIDS AND ARDESSES.	CARP	ENTERS.
CUSTOMS DISTRICTS.			_T					Wages		Wages per
	Num- ber.	Wages per month.	Num- ber.	Wages per month.	Num- ber.	Wages per month.	Num- ber.	per month.	Num- ber.	month.
Total		ner		per .		per		per		
Total	ber.	per month.		per .	ber.	per month.		per	ber.	\$4, 155
	ber.	per month. \$570.00		per .	23	per month.		per	87	\$4, 155 2, 805
Total for California	15	\$570.00 535.00		per .	23 22	#341.00 331.00		per	87 58	\$4, 155 2, 805 80
Total for California Total for Oregon Total for Washington	15	\$570.00 535.00		per .	23 22	#341.00 331.00		per	87 58 2	\$4, 155 2, 805 80 1, 270
Total for California	15	\$570.00 \$35.00 35.00		per .	23 22 1	\$341.00 331.00 10.00		per	87 88 2 27	#4, 155 2, 805 1, 270
Total for California	15	\$570.00 \$35.00 35.00		per .	23 22 1	\$341.00 331.00 10.00		per	87 88 2 27	\$4, 155 2, 805 80 1, 270
Total for California Total for Oregon Total for Washington alifornia San Diego Wilmington San Francisco	15	\$570.00 \$35.00 35.00		per .	23 22 1	\$341.00 331.00 10.00		per	87 88 2 27	\$4, 155 2, 805 80 1, 270 2, 805
Total for California Total for Oregon Total for Washington alifornia San Diego Wilmington San Francisco Humboldt	15 14 1 14 14 14 14	\$570.00 \$570.00 535.00 35.00 535.00		per .	23 22 1 22 22 22 22 22 22 22 22 22 22 22 2	\$341.00 331.00 10.00 331.00		per	58 2 27 58 58	\$4, 155 2, 805 80 1, 270 2, 805
Total for California Total for Oregon Total for Washington alifornia San Diego Wilmington San Francisco Humboldt	15 14 1 14 14	\$570.00 \$35.00 35.00 535.00		per .	23 22 1 22 22	#341.00 331.00 10.00		per	87 58 2 27 58	\$4, 155 2, 805 80 1, 270 2, 805
Total for California Total for Oregon Total for Washington alifornia San Diego Wilmington San Francisco	15 14 1 14 14 14 14	\$570.00 \$570.00 535.00 35.00 535.00		per .	23 22 1 22 22 22 22 22 22 22 22 22 22 22 2	\$341.00 331.00 10.00 331.00		per	58 2 27 58 58	\$4, 155 2, 805 80 1, 270 2, 805
Total for California Total for Oregon Total for Washington alifornia San Diego Wilmington San Francisco Humboldt	15 14 1 14 14 14 14	\$570.00 \$570.00 535.00 35.00 535.00		per .	23 22 1 22 22 22 22 22 22 22 22 22 22 22 2	\$341.00 331.00 10.00 331.00		per	58 2 27 58 58	\$4, 155 2, 805 80 1, 270 2, 805
Total for California Total for Oregon Total for Washington alifornia San Diego Wilmington San Francisco Humboldt regon Southern Oregon	15 14 1 14 14 14 14	\$570.00 \$570.00 535.00 35.00 535.00		per .	23 22 1 22 22 22 22 22 22 22 22 22 22 22 2	\$341.00 331.00 10.00 331.00		per	58 2 27 58 58	\$4, 155 2, 805 80 1, 270 2, 805

TABLE 14.—EMPLOYES AND WAGES BY COAST TOTALS—AGGREGATE AND AVERAGE MONTHLY WAGES PAID TO EACH GRADE OF EMPLOYES ON ALL VESSELS ENGAGED IN PASSENGER AND FREIGHT TRAFFIC ON THE PACIFIC COAST, EXCLUSIVE OF FERRYBOATS.

		ALL CRAFT.			STRAMERS.		8	AILING VESSEL	.s .
employės.	Number em- ployed.	Aggregate wages for one month.	Average monthly wages.	Number em- ployed.	Aggregate wages for one month.	Average monthly wages.	Number em- ployed.	Aggregate wages for one month.	Average monthly wages.
Total	10, 396	\$521, 502. 86	\$ 50, 16	5, 825	\$ 311, 5 4 5. 22	\$53.48	4, 571	\$209, 957. 64	\$45.9
aptains	1,001	95, 175. 97	95. 08	351	41, 271. 46	116. 59	647	53, 904. 51	83.=
irst mates	685	39, 573. 77	57.77	286	18, 783. 87	65. 68	399	20, 789. 90	52.
econd mates, third mates, and boatswains	432	20, 756. 16	48.05	138	7, 556. 16	54.75	294	13, 200. 00	44.
lerks and pursers	189	12, 652, 50	66.94	188	12, 552. 50	66.77	1	100.00	100
urgeons		110.00	55.00	2	110.00	55.00			
irst engineers	353	35, 798. 54	101.41	353	35, 798. 54	101.41			
scond and third engineers	251	18, 650. 00	74.30	251	18, 650. 00	74. 30	:		
iremen and coal passers	657	29, 847, 26	45. 43	657	29, 847. 26	45.43			
Theelmen and pilots	134	9, 509. 17	70.96	128	9, 204. 17	71.91	6	305.00	50
ookoats	24	1, 039. 50	43. 31	19	844.50	44. 45	5	195.00	39
Vatchmen	160	6, 702. 73	41.89	153	6, 407. 73	41.88	7	295.00	42
ooks and bakers	726	35, 339, 45	48.68	296	14, 544, 45	49. 14	430	20, 795. 00	48
ooks' assistants, pantrymen, and butchers	393	10, 952. 28	27. 87	267	8, 372. 28	31. 36	126	2, 580. 00	20
samen	3, 331	127, 817. 33	38. 37	800	35, 090. 10	43.86	2, 531	92, 727. 23	36=
eck hands and porters	939	38, 344. 25	40.84	939	38, 344. 25	40.84			
ilers and water tenders	172	8, 053. 37	46. 82	172	8, 053, 37	46.82			
ewards and storekeepers	192	9, 440. 00	49. 17	177	8, 870. 00	50. 11	15	570.00	355.
aiters	455	11, 612. 58	25. 52	455	11, 612. 58	25. 52		 	
oya	163	3, 858. 00	23. 67	140	3, 517. 00	25. 12	23	341. 00	148
hambermaids and stewardesses		445, 00	24. 72	18	445. 00	24.72			
arpenters	119	5, 825, 00	48, 95	32	1, 670, 00	52, 19	87	4, 155, 00	425-70

Table 15.—Fuel account—amount and value of the coal and wood used as fuel on passenger and freight steamers, ferryboats, harbor tugs, and steam yachts of the pacific coast.

		c	OAL.	W	OOD.
CUSTOMS DISTRICTS.	Total cost of fuel.	Tons.	Cost.	Cords.	Cost.
Total	\$2,467,882.17	371, 977	\$2, 117, 032. 65	163, 669	\$350, 849. 52
California	1, 697, 578. 80	291, 980	1, 670, 316. 60	14. 290	27, 262_ 20
San Diego	10, 499. 40	1, 842	10, 499, 40		
Wilmington	16, 249. 70	1, 878	16, 244, 70	. 2	5. 00
San Francisco	1, 655, 672. 50	286, 625	1, 633, 762. 50	10,955	21, 910-
Humboldt	15, 157. 20	1, 635	9, 810. 00	3,342	5, 347.
)гедоп	548, 186. 25	54, 743	340, 649. 25	95, 643	207, 537 - 🔾
Southern Oregon	5, 616. 10	3	22. 50	3, 496	5, 593. €
Yaquina	26, 181. 90	2, 945	22, 087. 50	2, 559	4,00-
Oregon	30, 277. 85	79	485. 85	14, 896	29, 792
Willamette	486, 110. 40	51, 716	318, 053. 40	74, 692	168, 057 -
Washington—Puget sound	222, 117. 12	25, 254	106, 066. 80	53, 727	116,05

GENERAL OPERATIONS BY CLASSES.

TABLE 16.—PASSENGER AND FREIGHT VESSELS—NUMBER, TONNAGE, VALUE, TRAFFIC OPERATIONS, FINANCIAL ACCOUNT, AND DETAILS OF CREWS AND WAGES OF ALL VESSELS ENGAGED IN THE TRANSPORTATION OF PASSENGERS AND FREIGHT ON THE PACIFIC COAST, EXCLUSIVE OF FERRYBOATS.

ALL CRAFT.

CUSTOMS DISTRICTS.	Number.	Tonnage.	Value.	Trips.	Miles		tht moved. (Tons.)	Passengers carried.
Total	1,490	387, 325	\$19, 598, 440	198, 70	07 11,09	3, 537	8, 803, 591	1, 380, 234
CUSTOMS DISTRICTS.	Gross earning	s. Expenses.	Net earnings.	Common seamen employed.	Average wages per month paid common seamen.	Number making ordinary crews.	Total number . of men employed.	Total wages paid during year.
Total	\$18, 112, 955. 6	\$14, 898, 141. 32	\$3, 214, 814. 31	3, 331	\$38.37	10, 396	30, 332	\$5, 212, 639 20

STEAMERS.

CUSTOMS DISTRICTS.	Number.	Tonnage.	Value.	Trips.	Miles.	Freight moved. (Tons.)	Passengers carried.
Total	354	129, 491	\$12,66 0,755	159, 721	5, 586, 182	5, 727, 168	1, 380, 234
California	147	73, 833	7, 657, 705	23, 134	2, 377, 030	2, 684, 363	211, 171
Wilmington	5	756	149, 500	410	48, 752	144, 726	12, 305
San Francisco	136	72, 626	7, 479, 705	19, 218	2, 304, 871	2, 420, 955	173, 906
Humboldt	6	451	28, 500	3, 506	23, 407	118, 682	24, 960
Отедон	114	45, 016	4, 027, 200	104, 542	1, 588, 444	891, 784	775, 665
Southern Oregon	12	651	48, 300	6, 522	96, 566	119, 499	32, 585
Yaquina	7	1,077	125, 000	2, 928	67, 050	31, 491	14, 597
Oregon	33	2, 897	247, 600	13, 692	276, 076	242, 130	98, 006
Willamette	62	40, 391	3, 606, 300	81, 400	1, 148, 752	498, 664	630, 477
Washington—Puget sound	93	10, 642	975, 850	32, 045	1, 620, 708	2, 151, 021	393, 3 98

CUSTOMS DISTRICTS.	Gross earnings.	Expenses.	Net earnings.	Common seamen employed.	Average wages per month paid common seamen.	Number making ordinary crews.	Total number of men employed.	Total wages paid during year.
Total	\$11, 200, 131. 71	\$9, 495, 771. 45	\$1,704,360.26	800	\$43.86	5, 825	15, 807	\$2,924,205.19
California	6, 507, 530, 74	5, 402, 795, 34	1, 104, 735. 40	659	44.38	3, 342	9, 866	1, 703, 263. 70
Wilmington	61, 347. 92	60, 425. 69	922. 23	4	45.00	49	82	25, 826. 43
San Francisco	6, 390, 204. 61	5, 295, 690, 96	1, 094, 513. 65	655	44.38	3, 270	9, 740	1, 655, 683. 25
Humboldt	55, 978. 21	46, 678. 69	9, 299. 52			23	44	21, 754. 00
Oregon	3, 580, 464. 66	3, 233, 109. 34	347, 355. 32	124	41.97	1,738	4, 041	832, 502. 84
Southern Oregon	49, 246. 61	36, 686, 55	12, 560. 06			42	56	25, 984. 00
Yaquina	84, 463. 34	99, 394. 85	a14, 931, 51	6	45.00	60	185	36, 153. 31
Oregon	199, 086, 11	154, 522, 80	44, 563, 31	11	37.73	168	499	88, 927. 37
Willamette	3, 247, 668. 60	2, 942, 505, 14	305, 163. 46	107	42. 24	1, 468	3, 301	681, 438, 10
Washingtor-Puget sound	1, 112, 136, 31	859, 866. 77	252, 269, 54	17	37. 36	745	• 1,900	388, 438. 65

SAILING VESSELS.

CUSTOMS DISTRICTS.	Number.	Tonnage.	Value.	Trips.	Miles.	Freight moved. (Tons.)	Passengers carried.
Total	647	194, 478	\$6 , 112, 340	38, 986	5, 507, 355	2, 761, 826	
California.	577	150, 825	5, 236, 900	36, 299	4, 916, 486	2, 401, 593	
San Diego	7	222	20, 350	66	15, 274	2,300	
Wilmington	8	588	27, 400	229	26, 436	7, 571	
San Francisco	549	146, 924	4, 948, 150	35, 168	4, 772, 113	2, 351, 598	
Humboldt	13	3, 091	241.000 ,	836	102, 663	40, 124	

GENERAL OPERATIONS BY CLASSES—Continued.

TABLE 16.—PASSENGER AND FREIGHT VESSELS—Continued.

SAILING VESSELS—Continued.

CUSTOMS DISTRICTS.	Number.	Tonnage.	Value.	Trips.	Miles.		tht moved. Tons.)	Passengers carried.
Oregon	18	2. 022	\$53, 385	1, 60	59	0, 062	34, 050	
Southern Oregon	1	90	8,000	2.	1 8	3, 920	2, 916	
Oregon		220	10, 350	1, 56	4 19	742	21, 097	
Willamette	1	1,712	35, 035	2:	30	0, 400	10, 037	· · · · · · · · · · · · · · · · · · ·
Washington—Puget sound	52	41, 631	822, 055	1, 07	531	1, 807	326, 183	•••••
CUSTOMS DISTRICTS.	Gross earnings	Expenses.	Net earnings.	Common seamen employed.	Average wages per month paid common seamen.	Number making ordinary crews.	Total number of men employed	Total wages paid during year.
Total	\$6, 912, 823, 92	\$5, 402, 369. 87	\$1,510,454.05	2, 531	\$36. 64	4, 571	14, 52	5 \$2, 288, 434.0
California	5, 884, 740. 48	4, 566, 343. 25	1, 318, 397. 23	2, 126	36. 46	3, 848	12, 62	7 1, 966, 774.
San Diego	10, 640. 00	9, 552. 10	1, 087, 90	6	40. 46	20	3	4, 143, 7
Wilmington		24, 182. 89	1, 350. 65	14	35.71	29	6	13, 201.
San Francisco	5, 747, 932. 87	4, 453, 288. 01	1, 294, 644. 86	2, 054	36. 51	3, 699	12, 28	1, 904, 194.
Humboldt	100, 6 34. 07	79, 320. 25	21, 313. 82	52	34. 04	100	25	45, 235.
Oregon	81, 558. 05	54, 783. 41	26, 774, 64	27	27. 82	69	103	27.028.7
Southern Oregon	6, 387, 00	5, 936. 00	451.00	4	40.00	7		3, 500. 0
Oregon	19, 375. 74	11, 303. 52	1	6	27. 68	30	4:	•
Willamette	55, 795. 31	37, 543, 89	18, 251, 42	17	25. 00	32	53	
Washington—Puget sound	946, 525, 39	781, 243, 21	165, 282. 18	378	38. 29	654	1, 79	5 294, 630. (

UNRIGGED CRAFT.

CUSTOMS DISTRICTS.	Number.	Tonnage.	Value.	Trips.	Miles.	Freight moved. (Tons.)	Passengers carried.
Total	489	63, 356	\$825, 345			314, 597	
San Diego, California	28	1,966	12, 975			33, 064	
Wilmington, California	33	3, 935	62, 000			(a)	
San Francisco, California	146	27, 082	506, 700		 	27,000	
Humboldt, California	22	2, 290	19, 525		 	2,900	
Southern Oregon, Oregon	93	3, 026	20, 690			. 55, 860	
Yaquina, Oregon		40	200			. (a)	
Oregon, Oregon	28	1, 491	13, 810	 			
Willamette, Oregon		11, 002	109, 400	} 	•••••••	32, 030	
Puget sound, Washington	i	12, 524				•	

CUSTOMS DISTRICTS.	Gross earnings.	Expenses.	Net earnings.	Common seamen employed.	Average wages per month paid common seamen.	Number making ordinary crews.	Total number of men employed.	Total wages pudurin & year-
Total San Diego, California. Wilmington, California. San Francisco, California. Humboldt, Cailfornia. Southern Oregon, Oregon. Yaquina, Oregon Oregon, Oregon. Willamette, Oregon. Puget sound, Washington	(a)	(a)	(a)	(a)	(a)	(a)	(a)	(a)

a Included in steamers.

GENERAL OPERATIONS BY CLASSES—Continued.

TABLE 17.—FERRYBOATS—NUMBER, TONNAGE, VALUE, TRAFFIC OPERATIONS, FINANCIAL ACCOUNT, AND DETAILS OF CREWS AND WAGES OF FERRYBOATS.

CUSTOMS DISTRICTS.	Number.	Tonnage.	Value.	Trips.	Miles.		t moved. I	Passengers carried.
Total	38	24, 630	\$979, 300	473, 96	3 1, 179, 97	78	14, 772	2, 639, 095
California	20	22 551	816, 000	176, 78	946, 0	02	20	614, 006
San Diego	3	488	31, 500	39, 15	8 43, 80	37	20	545, 556
San Francisco	17	22, 063	784. 500	137, 62	5 902, 22	25		68, 44 8
Oregon	16	1,783	118, 300	284, 55	4 200.99)1	13, 893	1, 922, 838
Southern Oregon	1	20	1. 200	18-	1, 65	66		1, 275
Yaquina	1	16	900	1,07	1,10	18	92	1, 125
Willamette	14	1,747	116, 200	283, 29	198, 22	7	13, 801	1, 920, 438
Washington-Puget sound	2	296	45, 000	12, 62	32, 89)5	859	102, 251
CUSTOMS DISTRICTS.	Gross earnin	gs. Expenses.	Net earnings	Common seamen employed.	Average wages per month paid common seamen.	Number making ordinary crews.	Total number of men employed.	Total wages paid during year.
Total	\$994, 475	95 \$964, 904. 3	2 \$29, 571. 63	126	\$59.00	478	1, 150	\$395, 157
California	848, 798.	19 846, 558. 3	9 2, 239. 80	126	59.00	397	1,011	330, 815
San Diego	31, 379.	72 31. 684. 9	2 4305.20			18	29	8, 575
San Francisco	817, 418.	47 814, 873. 4	7 2, 545. 00	126	59.00	379	982	321,740
Oregon	127, 010.	68 100, 000, 3	4 27, 010. 34			71	119	54, 814
Southern Oregon	1, 170.	00 943.0	0 227.00			3	6	800
Yaquina	600.	00 420.0	0 180.00			1	! 1	300
Willamette	125, 240.	68 98, 637. 3	4 26, 603, 34	ļ		67	112	53, 714
Washington—Puget sound	18, 667.	08 18, 345. 5	9 321.49			10	20	10, 028

a Deficit.

TABLE 18.—FISHING VESSELS—NUMBER, TONNAGE, OPERATIONS, FINANCIAL ACCOUNT, AND DETAILS OF CREWS AND WAGES OF FISHING VESSELS NOT ENGAGED IN THE TRANSPORTATION OF FISHERY PRODUCTS AS FREIGHT. (a)

STEAMERS AND SAILING VESSELS.

POETS.	Num- ber.	Ton- rage.	Value.	Tripe.	Miles.	Gross earnings.	Expenses.	Net earnings.	Common seamen employed.	Average wages per month paid common seamen.	Number making ordinary crews.	Total number of men employed.	Total wages paid during year.
Total	84	10, 715	\$692, 455	1, 183	406, 638	\$719, 872. 25	\$697, 836. 45	\$22, 035. 80	790	\$34.97	. 866	1, 485	\$ 247, 028. 56
						STEAME	RS.						
Total	24	4, 343	411, 500	857	117, 400	277, 308. 91	307, 796. 52	b30, 487. 61	190	40. 79	136	532	114, 834, 93
San Francisco, California	14	3, 960	341, 000	627	104, 350	241, 440, 46	275, 746. 67	b34, 306. 21	173	40. 35	95	364	99, 158. 93
📭 aquina, Oregon	1	106	25, 000	4	1,400	19, 350. 00	15, 531. 40	3, 818, 60	8	45.00	13	117	5, 670. 00
Oregon, Oregon	5	185	24,000	26	6, 650	12, 192. 00	12, 192. 00	ļ <i></i>	5	50.00	12	32	6, 120. 00
Willamette, Oregon	3	79	20,000	200	5, 000	4, 326. 45	4. 326. 45		3	41. 67	13	16	3, 571. 00

SAILING VESSELS.

Total	60	6, 372	28∩, 955	326	289, 238	442, 563, 34	390, 039. 93	52, 523. 41	600	33. 13	730	953 132, 193, 63
San Diego, California	2	31	2, 625	34	10, 432	6, 810. 00	2, 155. 70	4, 654. 30	3	27. 50	7	7 1, 465. 25
San Francisco, California	40	5, 866	239, 900	75	233, 476	404, 077. 40	351, 987. 22	52, 090. 18	513	33. 85	614	810 107, 178. 72
Oregon, Oregon	10	137	12,730	210	7, 610	6, 087. 95	4, 663, 75	1, 422. 20	13	23.68	19	19 2, 912, 00
Puget sound, Washington	8	338	25, 700	7	37, 720	25, 587. 99	31, 231. 26	65, 643. 27	71	29. 85	90	117 20, 637. 66
-		l			1		•		1	İ		l '

13

1,500

(c)

Puget sound, Washington ...

(c)

35.00

3

315.00

GENERAL OPERATIONS BY CLASSES—Continued.

TABLE 19.—HARBOR TUGS—NUMBER, TONNAGE, VALUE, FINANCIAL ACCOUNT, AND DETAILS OF CREWS AND WAGES OF HARBOR TUGS AND OTHER FLOATING CHANNEL PROPERTY.

CUSTOMS DISTRICTS.	Number.	Tonnage.	Value.	Gross earnings.	Expenses.	Net earnings.	Common seamen employed.	Average wages per month paid common seamen.	Number making ordinary crews.	Total number of men employed.	•
Total	70	6, 109	\$1, 120, 800	\$765 , 305. 72	\$678, 220. 48	\$87, 085. 24	25	\$42, 59	374	573	\$247, 630. 45
California	52	4, 279	833, 500	626, 727. 37	544, 108. 54	82, 618, 83	21	42. 13	274	352	191, 706. 30
San Diego	4	294	28, 500	11, 127, 75	14, 300. 12	a3, 172. 37			14	19	6, 778, 15
Wilmington		89	22,000	3, 058, 22	3, 151. 15	a92. 93			7	15	1, 243, 15
San Francisco	44	3, 626	732 . 000	566, 031, 40	486, 103. 66	79, 927. 74	19	41.30	230	295	166, 950. 00
Humboldt	3	270	51,000	46, 510. 00	40, 553. 61	5, 956. 39	2	50.00	23	23	16, 735.00
Oregon	9	484	108, 300	28, 265, 54	23, 431. 80	4, 833. 74	2	50.00	35	45	17, 323. 56
Southern Oregon	2	100	21, 100	6, 082, 72	4, 775, 81	1, 306. 91			7	7	3, 309. 66
Yaquina		126	44, 500	14, 814. 29	12, 914. 29	1, 900. 00		!	11	15	9, 401. 40
Oregon	1	14	2,000	1, 200. 00	534. 20	665. 80	1	60.00	3	6	390.00
Willamette	4	244	40, 700	6, 168. 53	5, 207. 50	961. 03	. 1	40.00	14	17	4, 222.50
Washington-Puget sound	9	1, 346	179, 000	110, 312. 81	110, 680. 14	a367.33	2	40.00	65	176	38, 600. 63

a Deficit.

TABLE 20.—PILOT BOATS—NUMBER, TONNAGE, VALUE, EXPENSE ACCOUNT, AND DETAILS OF CREWS AND WAGES OF PILOT BOATS.

• CUSTOMS DISTRICTS.	Number.	Tonnage.	Value.	Expenses.	Common seamen employed.	Average wages per month paid common seamen.	Number making ordinary crews.	Total number of men employed.	Total wages paid during year.
Total	9	418	\$49, 700	\$ 35, 706. 73	14	\$33.77	31	71	\$16, 310
San Diego, California	1	20	3,000	2, 750. 00	1	22.75	3	3	2, 250
Wilmington, California	1	8	2,500	1, 750. 00	1	25. 00	3	3	1, 440
San Francisco, California	4	230	24, 500	24, 236, 72	9	· 35. 0 0	17	57	8, 820
Oregon, Oregon	2	141	19,000	5, 468. 36	2	40.00	5	5	2,760
Puget sound, Washington		19	700	1, 501. 65	1	30.00	3	3	1,040

TABLE 21.—YACHTS AND PLEASURE BOATS—NUMBER, TONNAGE, VALUE, AND DETAILS OF CREWS AND WAGES OF YACHTS AND PLEASURE BOATS.

STEAMERS AND SAILING VESSELS.

CUSTOMS DISTRICTS.	Number.	Tonnage.	Value.	Common seamen employed.	Average wages per month paid common seamen.	Number making ordinary crews.	Total number of men employed.	Total wages paid during year-
Total	28	675	\$75, 800	16	\$36, 68	36	45	\$8, 68 5-
		STEAMERS						
Total	3	63	6, 500			5	6	234-
San Diego, California	1	18	2, 500			2	2	3.8 -
Puget sound, Washington	ı	45	4, 000			3	4	200-
	SAI	ILING VESS	ELS.	•				
Total	25	612	69, 300	16	36. 68	31	39	8,451-
an Diego, California	7	101	8, 500	4	25.00	8	13	930.
Vilmington, California		98 i	7, 500	2	35, 00	6	7	1,680.
an Francisco, California		405	52, 800	9	42. 25	15	17	
Puget sound, Washington	1	8	500	1	36.68	2	2	313.

GENERAL OPERATIONS BY CLASSES-Continued.

Table 22.—NO TRAFFIC REPORT—NUMBER, TONNAGE, AND VALUE OF ALL STEAMERS AND SAILING VESSELS OVER FIVE TONS REGISTERED OR OWNED ON THE PACIFIC COAST IN 1889 FOR WHICH NO TRAFFIC REPORT WAS RECEIVED.

STEAMERS AND SAILING VESSELS.

		TOTAL.	į	ou	T OF COMMISS	ion.	OTHERWIS	SE NOT REPOR	RTED ON. (a)
CUSTOMS DISTRICTS.	Number.	Tonnage.	Value.	Number.	Tonnage.	Value.	Number.	Tonnage.	Value.
Total	123	. 12, 067	\$550, 875	74	8, 312	\$410, 400	49	3, 755	\$140, 475
		STEA	MERS.						
Total	42	5, 867	347, 600	33	5, 416	303, 100	9	451	44, 500
California	17	2, 026	142, 200	15	1,976	131, 200	2	50	11,000
Wilmington	4	88	17,000	4	88	17, 000			
San Francisco	12	1, 874	122, 200	10	1, 824	111. 200	2	50	11, 000
Humboldt	1	64	3, 000	1	64	3, 000	¦	!	
Oregon	17	2, 975	169, 400	13	2, 685	141, 400	4	290 :	28, 00
Yaquina	2	956	92,000	2	956	92, 000			
Oregon		76	10, 500	1	19	500	1	57	10.000
Willamette	13	1,943	66, 900	10	1,710	48, 900	3	233	18, 000
Washington—Puget sound	8	866	36, 000	5	753	30, 500	3	111	5, 500
		SAILING	VESSELS.						
Total	81	6, 200	203, 275	41	2, 896	107, 300	40	3, 304	95, 978
California	48	5, 362	175, 750	22	2, 632	94, 250	26	2, 730	81, 500
San Diego	4	87	2, 500	2	44	1,000	2	43	1, 50
San Francisco	43	5, 094	168, 750	20	2, 588	93, 250	23	2,506	75, 500
Humboldt	1	. 181	4, 500		2,000		1	181	4, 500
	_	-	-,						-,
Oregon	13	476	11, 950	8	142	6, 650	5	334	5, 300
Oregon	10	192	8,000	7	129	6, 560	3	63	1, 500
Willamette	3	284	3, 95 0	1	13	150	2	271	8, 800
	ı	1		il.	!		li .	1	

a Lost prior to or during 1889, sold to foreign owners, or untraceable.

GENERAL OPERATIONS BY CLASSES—Continued.

TABLE 23.—SUMMARY—NUMBER, TONNAGE, VALUE, TRAFFIC OPERATIONS, FINANCIAL ACCOUNT, AND DETAILS OF CREWS AND WAGES OF ALL VESSELS OF EVERY CLASS OF OCCUPATION OVER FIVE TONS REGISTERED OR OWNED ON THE PACIFIC COAST IN 1889, GROUPED BY DISTRICTS.

ALL CRAFT.

CUSTOMS DISTRICTS.	Number.	Tonnage.	Value.	Trips.	Miles.	Freight moved. (Tous.)	Passengers carried.
Total steam, sail, and unrigged	1, 842	441, 939	\$23, 067, 370	673, 853	12, 680, 153	8, 818, 363	4, 019, 3
CUSTOMS DISTRICTS.	Gross earni	ngs. Expenses.	Net earnings	Common seamen employed.	nonth paid ord	mber aking number inary of men employed	Total wages paiduring year.
Total steam, sail, and unrigged	\$20, 628, 316	28 \$17, 274, 809, 30	\$3,353,506.98	4, 302	\$38.36	12, 181 33, 65	86, 127, 450.
		STEAME	RS.				
CUSTOMS DISTRICTS.	Number.	Tonnage.	Value.	Trips.	Miles.	Freight moved.	Passengers carried.
Total	531	170, 503	\$15, 526, 45 5	634. 541	6, 883, 560	5, 741, 940	4, 019. 3
San Diego, California	. 8	800	62, 500	39, 158	43, 867	20	545, 5
Ferry	3	488	31, 500	39, 158	43, 867	20	545, 53
Harbor tugs	1	294	28, 500				
Yachts	. 1	18	2, 500				• • • • • • • • • • • • • • • • • • • •
		1					
Wilmington, California	. 10	933	188, 500	410	48, 752	144, 726	12,30
Freight and passenger		756	149, 500	410	48, 752	144, 726	12, 30
Harbor tugs	1	89	22, 000				• • • • • • • • • • • • • • • • • • • •
No traffic report	4	88	17, 000	• • • • • • • • • • • • • • • • • • • •		.'	•••••
San Francisco, California	223	104, 149	9, 459, 405	157, 470	3, 311, 446	2, 420, 955	242, 35
					l <u></u>		
Freight and passenger	i	72,626	7, 479, 705	19, 218	2, 304, 871	1	173, 900 68, 448
FerryFish		22, 063 3, 960	784, 500 341, 000	13 7, 62 5 627	902, 225 104, 350	l .	UD, 140
Harbor tugs	1	3, 626	732, 000	021	105, 330		• • • • • • • • • • • • • • • • • • • •
No traffic report	12	1, 874	122, 200				
	1		,				
'Humboldt, California	. 10	785	82, 500	3, 506	23, 407	118, 682	24, 960
Freight and passenger	. 6	451	28, 500	3, 506	23, 407	118, 682	24, 960
Harbor tugs		270	. 51,000			!	
No traffic report	1	64	\$,000	· • • • • • • • • • • • • • • • • • • •		.,. ,	
				0.500			AM
Southern Oregon, Oregon	. 15	771	70,600	6, 706	98, 222	119, 499	33,800
Freight and passenger	1	651	48, 300	6, 522	96, 566	119, 499	32,365
Ferry		20	1, 200	184	1, 656		1, 275
Harbor tugs	. 2	100	21. 100				• • • • • • • • • • • • • • • • • • • •
Yaquina, Oregon	. 13	2, 281	287, 400	4,004	69, 558	31, 583	15, 722
•	;				l		
Freight and passenger	7	1,077	125, 000	2,928	67. 050		14,597
Ferry	1	16	900	1,072	1, 108		1,15
Fish	1	106	25,000	4	1,400		• • • • • • • • • • • • • • • • • • • •
Harbor tugs	2 2	126 956	44, 500 . 92, 000 .				
No traine report		8.70	92,000				
Oregon, Oregon	41	3, 172	284, 100	13, 718	282, 726	242, 130	96,006
					ļ		94,006
Freight and passenger		2, 897 185	247, 600 24, 000	13, 692 26	276, 076	242, 130	***************************************
Harbor tugs		14	2,000		5.50		
No traffic report		76	10, 500				
					1	!	c ara A1E
Willamette, Oregon	96	44, 404	3, 850, 100	364, 898	1, 351, 979	512, 465	2, 550, 915
Freight and passenger	62	40. 391	3, 606, 300	81, 400	1, 148, 752	498, 664	630, 477
Ferry	. 14	1, 747	116, 200	283, 298	198, 227	13, 801	1, 920, 436
Fish		79 +	20, 000	200	5,000		• • • • • • • • • • • • • • • • • • • •
Harbor tugs		244	40, 700				• • • • • • • • • • • • • • • • • • • •
No traffic report	. 13	1, 943	66, 900 .		1	.i	

GENERAL OPERATIONS BY CLASSES—Continued.

TABLE 23 .- SUMMARY-Continued.

STEAMERS-Continued.

CUSTOMS DISTRICTS.	Number.	Tonnage.	Value.	Trips.	Miles		ght moved. (Tons.)	Passengers carried.
Puget sound, Washington	115	13, 208	\$1, 241, 350	44, 67	1 1,653	3, 603	2, 151, 880	495, 649
Freight and passenger	93	10, 642	975, 850	32, 04	5 1,62	0, 708	2, 151, 021	393, 398
Ferry	2	296	45,000	12, 62	50	2, 895	859	102, 251
Fish	1	13	1,500	(a)	(a)			************
Harbor tugs	9	1, 346	179,000					
Yachts	2	45	4,000					
No traffic report	8	866	36, 000	************				
CUSTOMS DISTRICTS.	Gross earniz	gs. Expenses.	Net earnings	Common s. seamen employed.	Average wages per month paid common seamen.	Number making ordinary crews.	Total number of men employed	Total wages paid during year.
Total	\$13, 237, 222.	29 \$11, 446, 692. 7	7 \$1, 790, 529, 52	1, 141	\$44.99	26, 818	18,068	683, 682, 061. 61
San Diego, California	42, 507.	47 45, 985, 0	4 c3, 477, 57			34	1 50	15,387.15
Ferry	31, 379.	72 31, 684. 93	2 6305. 20			• • • • • • • • • • • • • • • • • • • •	-	
Harbor tugs	11, 127.			The second second		18		5,5,5,5
Yachts	31,121	14,000.1	50,172.5			3		1,333,30
					************			34. 00
Wilmington, California	64, 406.	14 63, 576. 8	829. 30	4	45, 00	56	6 9	27, 069, 60
Freight and passenger	61, 347.	92 60, 425. 6	9 922, 22	4	45, 00	49	8	25, 826, 45
Harbor tugs	3, 058.	22 3, 151. 1	692, 93			3		
San Francisco, California	8, 015, 094.	94 6, 872, 414. 70	6 1, 142, 680, 18	973	45, 50	3, 974	11,38	2, 243, 532. 18
Freight and passenger	6, 390, 204.	61 5, 295, 690. 9	6 1, 094, 513. 65	655	44. 38	3, 270	9,74	1, 655, 683, 25
Ferry	817, 418.	47 814, 873, 4	7 2, 545, 00	126	59.00	379	98:	
Fish	241, 440.	46 275, 746, 6	7 c34, 306, 21	173	40.35	93	36	99, 158, 93
Harbor tugs	566, 031.	40 486, 103, 6	6 79, 927, 74	19	41.30	230	29	
Humboldt, California	102, 488.	21 87, 232, 30	0 15, 255. 91	2	50.00	46	6	38, 489, 00
Freight and passenger	55, 978.	21 46, 678, 69	9, 299, 52	2		22	3 4	21,754.00
Harbor tugs	46, 510.	00 40, 553, 6	1 5, 956. 39	2	50.00	22	3 2	
Southern Oregon, Oregon	56, 499.	33 42, 405. 3	6 14 093, 97			50	2 6	30. 093, 66
Freight and passenger	49, 246.	61 36, 686, 5	5 12, 560, 00			45	2 5	25, 984, 00
Ferry	1, 170.	00 943, 0	0 227.00	and the second second				0.000
Harbor tugs	6, 082.	201 - Page 400 of	1 1, 306. 9			3		
Yaquina, Oregon	119, 227.	63 128, 260. 5	4	14	45.00	88	5 31	51, 524. 71
Freight and passenger	84, 463,	34 99, 394. 8	5 c14, 931, 51	6	45, 00	60	0 18	36, 153, 31
Ferry	600.	00 420.0	0 180.00			1	1	1,700
Fish	19, 350.	00 15, 531, 4	0 3,818.00	8	45. 00	13	3 11	5, 670, 00
Harbor tugs	14, 814.	29 12, 914. 2	9 1, 900, 00			11	1 1	9, 401. 40
Oregon, Oregon	212, 478.	11 167, 249. 0	0 45, 229, 1	17	42, 65	183	3 53	95, 437. 37
Freight and passenger	199, 086.	11 154, 522. 8	0 44, 563, 31	1 11	37.73	168	8 49	88, 927, 37
Fish	12, 192,	Fall Salary Salary		. 5	50,00	15		41 000 DOMESTS
Harbor tugs		The second second	665, 86		60.00	-		390.00
Willamette, Oregon	3, 383, 404.	26 3, 050, 676. 4	3 332, 727. 8:	111	42. 20	1,565	2 3,44	742, 945, 66
Freight and passenger	3, 247, 668,	60 2, 942, 505, 1	4 ; 305, 163, 46	107	42, 24	1,468	3,30	681, 438, 16
Ferry	125, 240.					67	7 11:	53, 714, 00
Fish	19/20/20	45 4, 326. 4	5	. 3	41.67	13	3 10	3, 571. 00
Harbor tugs	6, 168.	53 5, 207, 5	961.00	1	40.00	10	1	4, 222, 50
Puget sound, Washington	1, 241, 116.	20 988, 892, 5	0 252, 223, 70	20	37.51	820	2, 100	437, 582, 28
Freight and passenger	1, 112, 136.	31 859, 866. 7	7 252, 269, 54	17	37.36	743	1,90	388, 438. 65
Ferry					************	10	- 4	
Fish		(a)	(a)	1	35,00		3	
Harbor tugs	110, 312.	81 110, 680. 1		3 2	40.00	65	5 17	el la verte y
Yachta			dimension.		morning	1	3	200.00
Comment of the second of the s		COLOR TO AND AND AND AND AND AND AND AND AND AND	1	1000				1

GENERAL OPERATIONS BY CLASSES—Continued.

TABLE 28.—SUMMARY—Continued.

SAILING VESSELS.

CUSTOMS DISTRICTS.	Number.	Tonnage.	Value	Trips.	Miles.		tht moved. Fons.)	Passeng carried
Total	. 822	208, 080	\$6 , 715, 570	39, 312	5, 796,	593	2, 761, 826	
San Diego, California	21	461	36, 975	100	25,	706	2, 300	
Freight	1 1	222	20, 350	66		274	2, 300	
Fish	2	31	2, 625	3;	10,	432	•••••	• • • • • • • • • • • • • • • • • • • •
Pilot boats	1	20	3,000		··		••••••	
Yachts	7 4	101 87	8, 500 2, 500	······································			•••••	•••••
Vilmington, California	13	694	37, 400	229	26,	436	7, 571	
Freight	.	588	27, 400	220	26	436	7 571	
Pilot boats	1	8	2, 500		-	-00	.,	•••••
Yachts	4	98	7, 500	· · · · · · · · · · · · · · · · · · ·	1			
an Francisco, California	649	158, 519	5, 434, 100	35, 243	5, 005,	589	2, 351, 598	
Freight	549	146, 924	4, 948, 150	35, 168	4,772,	113	2, 351, 598	
Fish	. 40	5, 866	239, 900	75		- 1		
Pilot boats	4	230	24, 500	· • • • • • • • • • • • • • • • • • • •				
Yachts	. 13	405	52, 800					
No traffic report	43	5, 004	168.750		-			••••••
Iumboldt, California	. 14	3, 272	245, 500	836	102,	663	40, 124	
Freight	. 13	3, 091	241,000	836	102,	663	40, 124	
No traffic report	1	181	4, 500					
outhern Oregon, Oregon :		1			!	}	1	
Freight	1	90	8, 000	21	8,	920	2, 916	•••••
regon, Oregon	36	690	50, 080	1,774	27,	352	21, 097	
Freight	14	220	10, 350	1,564	19,	742	21, 097	
Fish	10	137	12,730	210	i			
Pilot boats	2	141	19,000					
No traffic report	10	192	8,000		·!			• • • • • • • • • • • • • • • • • • • •
'illamette, Oregon	6	1, 996	38, 985	23	30, 4	100	10, 037	
	i				i		i	
Freight No-traffic report	3 3	1, 712 284	35, 035 3, 950	23	30, 4		10, 037	
nget sound, Washington	82	42, 358	864, 530	1, 086	569, 8	527	326, 183	
Freight	52	!_	822, 055	1, 079			326, 183	
.,	8	41, 631 338		7,019		t	020, 100	• • • • • • • • • • • • • • • • • • • •
Fish	1	i	25, 700	•	31,		;	• • • • • • • • • • • • • • • • • • • •
Pilot boats	1	19	700		.1			
Yachts No traffic report	20	8 362	500 15, 575		· ·····	···· ·····		
		<u>. </u>		<u> </u>	Average			
CUSTOMS DISTRICTS.	Gross earnings.	Expenses.	Net earnings.	Common seamen employed.	wages per	Number making ordinary crews.	Total number of men employed	Total wages pe during year.
Total	\$7, 391, 093, 99	\$5 , 828, 116, 53	\$1, 562, 977. 46	3, 161	\$35. 96	5, 363	15, 588	\$2,445,38
n Diego, California	20, 200. 00	14, 457. 80	5, 742. 20	14	32. 00	38	56	8,786
Freight	10, 640, 00	9, 552. 10	1, 087. 90	6	40. 46	20	33	4,10
Fish	6, 810. 00		1	3	27. 50	7	7	
Pilot boats	a2, 750. 00	2, 750. 00		1	22. 75	3	3	
Yachte				4	25. 00	8	13	
llmington, California	27, 283. 54	25, 932. 89	1, 350. 65	17	35. 00	38	70	16, 321
			i - i					1
Postaka i	OE 200 7	04 100 00	1 050 05		25 74			10 841
Freight	25, 533, 54 a1, 750, 00	24, 182, 89 1, 750, 00		14	35. 71 25. 00	. 29	60	

a Gross earnings includes the boats' earnings only; professional earnings of the pilots are not included.

7 1,694.00

35. 00 i

GENERAL OPERATIONS BY CLASSES—Continued.

TABLE 28.—SUMMARY—Continued.

SAILING VESSELS—Continued.

CUSTOMS DISTRICTS.	Gross earnings.	Expenses.	Net earnings.	Common seamen employed.	Average wages per month paid common seamen	Number making ordinary crews.	Total number of men employed.	Total wages paid during year.
an Francisco, California	\$6, 176, 246. 99	\$4, 829, 511. 95	\$1,346,735.04	2, 585	\$36.00	4, 345	13, 164	\$2, 025, 721. 44
Freight	5, 747, 932. 87	4, 453, 288. 01	1, 294, 644. 86	2, 054	36. 51	3, 699	12, 280	1, 904, 194, 72
Fish	404, 077. 40	351, 987. 22	52, 090. 18	513	33, 85	614	810	107, 178, 72
Pilot boats	a24, 236. 72	24, 236, 72		9	35.00	17	57	8. 820900
Yachts				9	42. 25	15	17	5, 528. 00
(umboldt, California :								
Freight	100, 634. 07	79, 320. 25	21, 313. 82	52	34. 04	100	254	45, 235. 15
outhern Oregon, Oregon:								
Freight	6, 387. 00	5, 936. 00	451.00	4	40.00	7	7	3, 500, 00
regon, Oregon	30, 932. 05	21, 437. 68	9, 494. 42	21	26. 50	54	67	16, 060. 75
Freight	19, 375. 74	11, 303, 52	8, 072. 22	6	27. 68	80	43	10, 388. 75
Fish	6, 087. 95	4, 665. 75	1, 422. 20	13	23. 88	19	19	2, 912. 00
Pilot boats	a5, 468. 36	5, 468. 36		2	40.00	5	5	2, 760. 00
Villamette, Oregon :								
Freight	55, 795 . 31	37, 543. 89	18, 251. 42	17	25. 00	32	53	13, 140. 00
uget sound, Washington	973, 615. 03	813, 976. 12	159, 638, 91	451	36. 94	749	1, 917	316, 621. 76
Freight	946, 525. 39	781, 243, 21	165, 282. 18	378	38. 29	654	1, 795	294, 630, 66
Fish		31, 231. 2 6	b5, 643. 27	71	29.85	90	117	20, 637. 66
Pilot boats	a1, 501. 65	1, 501. 65		1	30.00	3	3	1, 040. 00
Yachta		l		1	36, 68	2	2	313.44

UNRIGGED CRAFT.

CUSTOMS DISTRICTS.	Number.	Tonnage.	Value.	Trips.	Miles.	Freight moved. (Tons.)	Passengers carried.
Total	489	63, 356	\$825, 345			314, 597	
San Diego, California	28	1, 966	12, 975			33, 064	
Wilmington, California	. 33	3, 935	62, 000			(c)	
San Francisco, California	146	27, 082	506, 700			27, 000	
Humboldt, California	22	2, 290	19, 525			2,900	
Southern Oregon, Oregon	93	3, 026	20, 690			55, 860	
Yaquina, Oregon	3	40	200			(c)	
Oregon, Oregon	28	1, 491	13, 810			(c)	
Willamette, Oregon	34	11,002	109, 400			32, 030	
Puget sound, Washington	102	12, 524	80, 045	· • • • • • • • • • • • • • • • • • • •		163. 743	

CUSTOMS DISTRICTS;	Gross earnings.	Expenses.	Net earnings.	Common seamen employed.	Average wages per month paid common seamen.	Number making ordinary crews.	Total number of men employed.	Total . wages paid during year.
Total San Diego, California Wilmington, California San Francisco, California Humboldt, California Southern Oregon, Oregon Yaquina, Oregan Oregon, Oregon Willamette, Oregon Puget sound, Washington	(0)	(e)	(c)	(c)	(0)	(e)	(e)	(a) ,

 $[\]alpha$ Gross earnings includes the boats' earnings only; professional earnings of the pilots are not included.

b Deficit.

e Included in steamers.

COMPARATIVE STATISTICS.

TABLE 24.—STEAMERS AND UNRIGGED CRAFT IN 1880 AND 1889—NUMBER, TONNAGE, AND VALUE OF STEAMERS AND UNRIGGED CRAFT IN 1880 AND 1889, AS REPORTED BY THE TENTH AND ELEVENTH CENSUSES.

	ALL CRAFT.				STEAMERS.		UNRIGGED CRAFT.			
STATES AND YRARS.	Number.	Tonnage.	Value.	Number.	Tonnage.	Value.	Number.	Tonnage.	Value.	
Total	534	125, 090, 48	\$6, 620, 980	319	97, 004. 88	\$6, 477, 500	215	28, 085, 60	\$143, 486	
	1, 020	233, 859, 00	16, 351, 800	531	170, 503. 00	15, 526, 455	489	63, 356, 00	825, 345	
California 1880		73, 507. 80	3, 873, 380	a178	58, 828, 80	3, 763, 200	88	14, 679. 00	110, 186	
1889		141, 940. 00	10, 394, 105	251	106, 667, 00	9, 792, 905	229	35, 273. 00	601, 200	
Oregon	198	43, 657. 54	2, 207, 700	89	31, 370. 94	2, 177, 000	109	12, 286. 60	30, 700	
	323	66, 187. 00	4, 636, 300	165	50, 628. 00	4, 492, 200	158	15, 559. 00	144, 166	
Washington	70	7, 925. 14	539, 900	52	6, 805, 14	537, 300	1£	1, 120, 00	2, 606	
	217	25, 732. 00	1, 321, 395	115	13, 208, 00	1, 241, 350	102	12, 524, 00	80, 045	

a Exclusive of Pacific Mail interests owned in New York.

TABLE 25.—STEAMERS BY CLASSES IN 1880 AND 1889—NUMBER, TONNAGE, AND VALUE OF STEAMERS IN 1880 AND 1889, GIVEN BY CLASSES, AS REPORTED BY THE TENTH AND ELEVENTH CENSUSES.

CLASSES AND YEARS.	Number.	Tonnage.	Value.
Total	319	97, 004, 88	\$6, 477, 500
	531	170, 503, 10	15, 526, 455
Passenger and freight 1880 1889 1889	224	70, 392, 43	4, 414, 909
	354	129, 490, 38	12, 660, 755
Ferry	32	21. 993. 99	1, 429, 100
	38	24, 629, 26	979, 300
Towing and harbor		4, 558, 49 6, 109, 51	614.600 1, 120.800
Miscellaneous		59. 97 10, 273. 95	18, 999 765, 646

TABLE 26.—GROSS EARNINGS OF STEAMERS IN 1880 AND 1889—GROSS EARNINGS OF STEAMERS OPERATING IN 1880 AND 1889, TOGETHER WITH THE AMOUNT PAID OUT IN WAGES DURING THOSE YEARS, AS REPORTED BY THE TENTH AND ELEVENTH CENSUSES.

California 1880. 4,011,084 1.158 1889. 8,224,497 2.234. Oregon 1,983,703 602. 1889. 3,771,609 238. Washington 1880. 367,983 192.	STATES AND YEARS.	Gross earnings.	Paid in wage.
1889. 8, 224, 497 2 234. Pregon			\$1, 953, 45; 3, 662, 662
1889. 3,771,009 990, Washington			1, 158, 30 2, 324, 674
		1, 983, 703 3, 771, 609	902, 578 930, 601
			192, 573 437, 582

TABLE 27.—STEAMERS' CREWS AND WAGES IN 1880 AND 1889—NUMBER OF MEN CONSTITUTING ORDINARY CREWS EMPLOYED ON STEAMERS OPERATING IN 1880 AND 1889, AS REPORTED BY THE TENTH AND ELEVENTH CENSUSES, TOGETHER WITH WAGES PAID AND AVERAGES OF ANNUAL PAY AND DECREASE OR INCREASE PER MAN, GIVEN BY LOCALITIES.

STATES AND YEARS.	Total number men, ordinary crews.	Total wages paid.	Average annual wages per man.	A verage annual decrease in wages per man.
Total		\$1, 953, 451 3, 682, 062	\$649. 42 540. 05	\$100.7
California		1, 158, 200 2, 324, 478	587. 92 565. 57	22
)regon		602, 576 920, 002	764. 69 488. 84	275.8
Washington		192, 675 437, 582	770. 70 529. 76	340.9

COMPARATIVE STATISTICS—Continued.

TABLE 28.—STEAMER TRAFFIC IN 1880 AND 1889—NUMBER OF TONS OF FREIGHT MOVED AND NUMBER OF PASSENGERS CARRIED BY STEAMERS AND UNRIGGED CRAFT OPERATING IN 1880 AND 1889, GIVEN BY LOCALITIES, ASREPORTED BY THE TENTH AND ELEVENTH CENSUSES.

; }	F	REIGHT IN TONS.		PASSENGERS.				
STATES AND YEARS.	Total.	By steamers.	By unrigged craft.	Total.	Regular.	Ferry.		
Total	2, 087, 293 8, 488, 101	2, 087, 293 a8, 173, 504	314, 597	6, 604, 712 15, 672, 093	300, 752 1, 380, 234	6, 303, 960 b14, 291, 859		
California	1, 561, 256 5, 178, 911	1, 561, 256 a5, 115, 947	62, 964	6, 309, 502 12, 477, 941	140, 650 211, 171	6, 168, 852 512, 266, 770		
Oregon	476, 898 993, 567	476, 898 905, 677	87, 890	159, 903 2, 698, 503	66, 615 775, 665	93, 288 1, 922, 838		
Washington	49, 139 2, 315, 623	49, 139 2, 151, 880	163, 743	135, 307 495, 649	93, 487 393, 398	41, 820 102, 251		

a Including railroad ferry freight.

b Including railroad ferry passengers.

Table 29.—FLEETS FOR THE TEN YEARS, 1880-1889—NUMBER AND TONNAGE OF ALL STEAMERS, SAILING VESSELS, AND UNRIGGED CRAFT REGISTERED IN THE CUSTOMS DISTRICTS OF THE PACIFIC COAST FOR THE TEN YEARS. 1880-1889.

			80.					·
	, T	OTAL.	STI	LAMERS.	SAILIN	G VESSELS.	UNRIGG	ED CRAFT.
CUSTOMS DISTRICTS.	Number.	Tonnage.	Number.	Tonnage.	Number.	Tonnage.	Number.	Tonnage.
Total	1, 124	270, 801, 75	305	110, 414, 61	752	148, 400, 41	67	11, 966. 7
alifornia	884	202, 114. 30	171	75, 965. 35	652	117, 970, 52	61	8, 178. 4
San Diego	17	975. 26	2	147. 94	15	827. 32		
San Francisco	. 867	201, 139. 04	169	75, 817. 41	637	117, 143, 20	61	8, 178. 4
regon	135	39, 657, 63	91	28, 808. 00	38	7, 041. 33	6	3, 808. 3
Southern Oregon	. 12	662. 09	12	662. 09	ı'			
Oregon	46	2, 360, 79	17	1, 037. 86	29	1, 322, 93	1	
Willamette	77	36, 634. 75	62	27, 108, 05	9	5, 718. 40	6	3, 808. 3
7ashington—Puget sound	105	29, 029. 8 2	43	5, 641. 26	62	23, 388. 56	ļ	·····
		18	381.					
Total	1, 128	284, 425. 60	310	112, 434. 54	748	158, 940, 98	73	13, 050. 0
alifornia	. 868	202, 906, 59	168	75, 336. 06	639	119, 392. 10	61	8, 178. 4
San Diego	21	1, 053. 94	2	147. 94	19	906. 00		
San Francisco	847	201, 852. 65	166	75, 188. 12	620	118, 486, 10	61	8, 178. 4
regon	. 143	43, 500, 79	98	31, 761, 16	37	6, 906. 41	8	4, 833. 2
Southern Oregon	12	661. 17	12	661. 17				
Oregon	. 44	2, 270. 04	18	1, 399. 90	26	870. 14		
	. 87	40, 569, 58	68	29, 700. 09	11	6, 036. 27	8	4, 833. 2
Willamette	1 !				1		ii !	
Willamette	. 117	38, 018. 22	44	5, 337, 32	72	32, 642. 47	1	38. 4
Willamette Washington—Puget sound	. 117		4 .	5. 337. 32	72	32, 642. 47	1	38. 4
Willamette				5. 337. 32	72	32, 642. 47 167, 351. 44	68	38. 43 12, 980. 43

			·~·					
Total	1, 166	300, 766, 83	326	120 434. 9.1	772	167, 351, 44	68	12, 980. 45 .
California	887	211, 126, 02	170	75, 385. 21	656	127, 562, 38	61	8, 178. 43
San Diego	27	3, 068. 17	5 ;	255. 23	22	2. 812. 94		
San Francisco	860	208, 057. 85	165	75, 129. 98	634	124, 749, 44	61	8, 178. 4 3 ·
Oregon	156	52, 568. 56	106	39, 380. 46	43	8, 386, 08	7	4, 802. 02 :
Southern Oregon	12	660.95	12	660. 95				
Oregon	50	3, 770. 80	20	1, 521. 21	30	2, 249, 59		.,,,,,
Willamette	94	48, 136. 81	74	37, 198. 30	13	6, 136. 49	7-	4, 802. 02
Washington—Puget sound	123	37, 072. 25	50	5, 669 27	73	31, 402, 98		•••••

COMPARATIVE STATISTICS—Continued.

TABLE 29.—FLEETS FOR THE TEN YEARS, 1880-1889—Continued.

1883.

	TOTAL.		STEAMERS.		8AILI	NG VESSELS.	UNRIGGED CRAFT.	
CUSTOMS DISTRICTS.	Number.	Tonnage.	Number.	Tonnage.	Number.	Tonnage.	Number.	Tonnage.
Total	1, 169	326, 944. 94	349	134, 435. 75	812	186, 536. 21	8	5, 972.
California	884	230, 168. 26	185	87, 293. 86	699	142, 874. 40		
San Diego	22	1. 357. 96	5	622. 63	17	735. 33		
Wilmington	9	1, 071. 64	3	533, 90	6	537.74		 ••••••••••••
San Francisco	842	225, 864. 51	174	85, 961. 13	668	139, 903. 38		
Humboldt	11	1, 874. 15	3	176. 20	8	1. 697. 95		
Oregon	145	52, 994. 69	102	39, 155. 01	35	7, 866, 70	8	5, 972.9
Southern Oregon	12	706. 15	12	706, 15				
Oregon	46	3, 432. 44	22	1, 686. 07	24	1, 746. 37		
Willamette	87	48, 856. 10	68	86, 762, 79	11	6, 120. 33	8	5, 972.9
Washington—Puget sound	140	43, 781. 99	62	7, 986. 88	78	3 5, 79 5. 11		

1884.

Total	1, 202	334, 188. 81	384	146, 561. 82	818	187, 626. 99	
California	875	233, 440. 22	185	97, 377. 34	690	136, 062. 88	
San Diego	14	344. 45	4	209, 31	10	135. 14	
Wilmington	11	1, 422, 54	3	533.90	8	888. 64	
San Francisco	8 2 3	227, 673. 06	169	95, 62 0. 02	654	132, 053. 04	
Humboldt	27	4, 000. 17	9	1, 014. 11	18	2, 986. 06	
Oregon	163	50, 798. 48	121	40, 182. 07	42	10, 616. 41	
Southern Oregon	11	866, 34	11	866. 34			
Yaquina	5	1, 295. 29	5	1, 295. 29			
Oregon	57	3, 887. 45	30	2, 107. 43	27	1, 780. 02	
Willamette	90	44. 749. 40	75	35, 913. 01	15	8, 836. 39	
Washington—Puget sound	164	49, 950. 11	78	9, 002. 41	86	40, 947. 70	

1885.

Total	1, 250	360, 110, 56	402	153, 808. 04	840	200, 329. 54	8	5, 972.9
California	900	251, 142. 60	194	101, 757. 24	706	149, 385. 36		
San Diego	11	380.97	2	120. 58	9	260.39		
Wilmington	12	831. 93	3	236. 55	9	595. 38		
San Francisco	854	246, 876. 05	180	100, 386. 00	674	146, 490. 05		i
Humboldt	23	3, 053, 65	9	1. 014. 11	14	2, 039, 54		· · · · · · · · · · · · · · · · · · ·
Oregon	184	59, 191. 81	129	42, 626. 54	47	10, 592, 29	8	5, 972.9
Southern Oregon	14	1, 554. 19	12	1, 417. 39	2	136. 80		
Yaquina	5	1, 307. 39	5	1, 307. 39				: :
Oregon	66	4, 113. 55	35	2, 320, 26	31	1, 793, 29		
Willamette	99	52. 216. 68	77	37, 581, 50	14	8, 662, 2 0	. 8	5, 972.98
Washington-Puget sound	166	49, 776. 15	79	9, 424. 26	87	40, 351. 89		•••••

TRANSPORTATION ON THE PACIFIC COAST.

COMPARATIVE STATISTICS—Continued.

TABLE **99.**—FLEETS FOR THE TEN YEARS, 1880–1889—Continued. 1886.

	ר	POTAL.	STI	LAMERS.	SAILIN	O VESSELS.	UNRIGO	ED CRAFT.
CUSTOMS DISTRICTS.	Number.	Tonnage.	Number.	Tonnage.	Number.	Tonnage.	Number.	Tonnage.
Total	1, 253	347, 059. 73	416	156, 320. 30	829	184, 766. 45	8	5, 972. 90
alifornia	885	248, 132. 93	198	103, 591, 98	687	144, 540, 95		
San Diego	13	203.00	2	34. 16	11	168. 84		
Wilmington	13	919.70	3	307.93	10	611.77		
San Francisco	838	243, 413, 77	183	102, 178, 08	650	141, 235. 69		
Humboldt	26	3, 596, 46	10	1, 071. 81	16	2, 524, 65		
Dregon	191	56, 806, 43	132	42, 517. 08	51	8, 316. 37	8	5, 972. 9
Southern Oregon	14	763. 07	11	608. 31	3	154. 76		
Yaquina	6	1, 406, 59	6	1, 406. 59				
Oregon	68	2, 816. 20	34	2, 161. 17	34	655. 03		
Willamette	103	51, 820, 57	81	38, 341, 01	14	7, 506. 58	8	5, 972. 9
Washington—Puget sound	177	42, 120. 37	86	10, 211. 24	91	31, 909. 13		

1887.

Total	1, 217	355, 814. 58	426	160, 139, 75	783	189, 701, 85	8	5, 972. 98
California.	864	254, 092. 29	203	111, 049. 41	661	143, 042. 88		
San Diego	21	2, 519. 64	4	443. 45	17	2, 076. 19		
Wilmington	15	1, 737. 64	3 1	307. 93	12	1, 429, 71		· · · · · · · · · · · · · · · · · · ·
San Francisco	803	246, 699. 65	187	109, 606. 65	616	137, 093. 00		
Humboldt	25	3, 135. 36	9	691.38	16	2, 443. 98	-	
Oregon	188	52, 261. 69	137	38, 697. 60	43	7. 591. 11	8	5, 972. 9 8
Southern Oregon	12	554. 39	11	538.08	1	16. 31		
Yaquina	10	3, 332. 84	10	3, 332. 84		. 		
Oregon	65	3, 352. 49	33	2, 318. 73	32	1, 033. 76		
Willamette	101	45, 021. 97	83	32, 507. 95	10	6, 541. 04	8	5, 972. 98
Washingtou—Puget sound	165	49, 460. 60	86	10, 392. 74	79	39, 067, 86	ļ,l	•••••

1888.

Total	1, 293	399, 173. 18	459	168, 268. 58	826	224, 931. 62	8	5, 972. 98
California	917	281, 131, 83	225	115, 976, 96	692	165, 154. 87		
San Diego	. 31	2, 167. 62	7	1, 088. 50	24	1, 079. 12		
Wilmington	18	2, 598. 41	5	580. 9 5	13	2, 017, 46		 .
San Francisco	837	271, 063, 19	204	113, 725. 12	633	157, 338. 07		
Humboldt	31	5, 302, 61	9	582.39	22	4, 720, 22	ļ	· · · · · · · · · · · · · · · · · · ·
Oregon	185	53, 317. 28	136	40, 616, 88	41	6, 727. 42	8	5, 972. 98
Southern Oregon	12	548. 10	12	548. 10				
Yaquina	9	2, 202. 75	9 !	2, 20 2. 7 5		· • • • • • · · · · · · · · · · · · · ·	l,	
Oregon	67	4, 462, 93	34	2, 188. 38	33	2, 274, 55		. .
Willamette	97	46, 103, 50	81	3 5 , 677. 6 5	8	4, 452. 87	8	5, 972, 98
Washington—Puget sound	191	64, 724, 07	98	11, 674, 74	93	53, 049, 33	il	

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COMPARATIVE STATISTICS—Continued.

TABLE 29.—FLEETS FOR THE TEN YEARS, 1880-1889—Continued. 1889.

	7	TOTAL.	STI	EAMERS.	BAILIN	G VESSELS.	UNRIGGI	ED CRAFT.
CUSTOMS DISTRICTS.	Number.	Tonnage.	Number.	Tonnage.	Number.	Tonnage.	Number.	Tonnage.
Total	1, 367	435, 004. 14	517	180, 496. 04	841	248, 429. 78	9	6, 078. 32
California	957	314, 227. 08	249	122, 405, 03	708	191, 822. 05		
San Diego	30	1, 630, 92	8	1, 136. 01	22	494. 91		
Wilmington	19	1, 570. 68	7	889. 64	12	681.04		• • • • • • • • • • • • • • • • • • •
San Francisco	880	306, 178. 34	222	119, 177. 69	658	187, 000. 65		• • • • • • • • • • • • • • • • • • • •
Humboldt	28	4, 847. 14	12	1, 201. 69	16	3, 645. 45		•••••
Oregon	196	51, 238. 13	148	39, 543. 21	40	5, 721. 94	8	5, 972. 98
Southern Oregon	15	779. 11	13	660, 65	2	118. 46		
Yaquina	1 1	2, 360. 85	11	2, 360, 85			' <u> </u>	
Oregon	72	5, 391. 03	40	3, 003. 96	32	2, 387. 07	-	· · · · · · · · · · · · · · · · · · ·
Willamette	98	42, 707. 14	84	33, 517. 75	6	3, 216. 41	8	5, 972, 96
Washington—Puget sound	214	69, 538. 93	120	18, 547. 80	93	50, 885. 79	1	106. 34
	RECAI	PITULATION 1	FOR THE T	EN YEARS.				
1880	1, 124	270, 801. 75	305	110, 414. 61	752	• 148, 400. 41	67	
1881	1, 128	284, 425, 60	310	112, 434. 54	748	158, 940. 98	70	13, 050. 06
1882	1, 166	300, 766, 83	326	120, 434. 94	772	167, 351. 44	68	12, 980. 45
1883	1, 169	326, 944. 94	349	134, 435. 75	812	186, 536. 21	8	5, 972. 98
1884	1, 202	334, 188. 81	384	146, 561. 82	818	187, 626 . 39	-	
1885	1, 250	360, 110. 56	402	153, 808. 04	840	200, 329. 54	8	5, 672. 98
1896	1, 253	347, 059. 73	416	156, 320. 30	829	184, 766. 45	8	5, 972. 9
1887	1, 217	355, 814. 58	426	160, 139. 75	783	189. 701. 85	8	5, 972, 96
1888	1, 293	399, 173. 18	459	168, 268. 58	826	224, 931, 62	. 8	5, 972 %

COMPARATIVE STATISTICS—Continued.

TABLE 30.—AGGREGATES AND AVERAGES FOR THE TEN YEARS. 1880-1889—NUMBER, AGGREGATE TONNAGE, AND AVERAGE TONNAGE OF ALL VESSELS REGISTERED AT THE CUSTOMS DISTRICTS OF THE PACIFIC COAST DURING THE TEN YEARS 1880-1889.

		1880			1881		ļ	1882			1888			1884	
CUSTOMS DISTRICTS.		Tonna	ge.		Tonna	ge.		Tonna	ge.		Tonna	go.		Tonna	ge.
	Num- ber.	Total.	Aver-	Num- ber.	Total.	Aver-	Num- ber.	Total.	Average.	Num- ber.	Total.	Average.	Num- ber.	Total.	Average.
Total	1, 124	270, 801. 75	240. 93	1, 128	284, 425. 60	252, 15	1, 166	300, 766. 83	257. 95	1, 169	326, 944. 94	279. 68	1, 202	334, 188. 81	278. 0
California	884	202, 114. 30	228. 64	868	202, 906. 59	233.76	887	211, 126. 02	238. 02	884	230, 168. 26	260. 37	875	233, 440. 22	266. 7
San Diego	1	975. 26	57.37	21	1, 053. 94	50. 19	27	3, 068. 17	113.64	22 9	1, 357. 96 1, 071. 64	61. 78 119. 07	14 11	344. 45 1, 422. 54	24. 6 129. 3
San Francisco		201, 139. 04	231.99	847	201, 852. 65	238. 31	860	208, 057. 85	241. 93	842 11	225, 864. 51 1, 874. 15	268. 25 170. 38	823 27	227, 673. 06 4, 000. 17	276. 6 148. 1
Oregon	135	39, 657. 63	293. 76	143	43, 500. 79	304. 20	156	52, 5 6 8. 5 6	336. 9 8	145	52, 994. 69	365. 48	163	50, 798. 48	311. 6
Southern Oregon Yaquina	1	662.09	55. 17	12	661. 17	55. 10	12	660. 95	55. 08	12	706. 15	58. 85	11 5	866. 34 1, 295. 29	78. 7 259. 0
Oregon	46	2, 360. 79	51.32	44	2, 270. 04	51.59	50	3, 770. 80	75.42	46	3, 432. 44	74. 62	57	3, 887. 45	68.
Willamette	77	36, 634, 75	475. 78	87	40, 569, 58	466. 32	94	48, 136, 81	512.09	87	48, 856, 10	561.56	90	44, 749. 40	497.
Washington — Puget sound.	105	29, 029. 82	276.47	117	38, 018. 22	324. 94	123	37, 072. 25	301. 40	140	43, 781. 99	312.73	164	49, 950. 11	304.
		1885		l. I	1886			1887		1	1888		!	1889	
CUSTOMS DISTRICTS.		Tonna	ge.		Tonns	ge.		Tonns	ıge.		Tonns	ıge.		Tonna	ge.
	Num- ber.	Total.	Aver- age.	Num- ber.	Total.	Aver-	Num- ber.	Total.	Aver-	Num- ber.	Total.	Aver- age.	Num- ber.	Total.	A ver
Total	1, 250	360, 110. 56	288. 09	1, 253	347,059.73	274. 98	1, 217	355, 814. 58	292. 37	1, 293	390, 173. 18	308. 72	1, 367	435, 004. 14	318.
California	900	251, 142. 60	279. 05	885	248, 132. 93	280. 38	864	254, 092, 29	294. 09	917	281, 131. 83	306. 58	957	314, 227. 08	328.
San Diego	11	880. 97	34. 63	13	203.00	15. 62	21	2, 519. 64	119.98	31	2, 167. 62	69. 92	30	1, 630. 92	54.
Wilmington	12	831. 93	69.33	13	919.70	70.75	15	1, 737. 64	115. 84	18	2, 598. 41	144. 36	19	1, 570. 68	82.
San Francisco	854	246, 876. 05	289. 08	833	243, 413. 77	292. 21	803	246, 699. 65	307. 22	837	271, 063, 19	323.85	880	306, 178. 34	347.
Humboldt	23	3, 053. 65	132.77	26	3, 596, 46	138. 33	25	3, 135. 36	125. 41	31	5, 302, 61	171.05	28	4, 847. 14	173.
Oregon	184	59, 191. 81	321.69	191	56, 806. 43	207. 42	188	52, 261. 69	277.99	185	53, 317. 28	288. 20	196	51, 238. 13	261.
Southern Oregon	14	1, 554. 19	111.01	14	763. 07	54. 51	12	554. 39	46. 20	12	548. 10	45. 68	15	779. 11	51.
Yaquina	. 5	1, 307. 39	261.48	6	1, 466. 59	234. 43	10	3, 332. 84	333. 28	9	2, 202. 75	244. 75	11	2, 360. 85	214.
Отедов	. 66	4, 113. 55	62. 33	68	2, 816. 20	41.41	65	3, 352. 49	51.58	67	4, 462. 93	66. 61	72	5, 391. 03	74.1
Willamette	. 99	52, 216. 68	527. 44	103	51, 820. 57	503. 11	101	45, 021. 97	445. 76	97	46, 103. 50	475. 29	98	42, 707. 14	435.

COMPARATIVE STATISTICS—Continued.

TABLE 31.—AGGREGATES AND AVERAGES FOR THE TEN YEARS, 1880-1889—NUMBER, AGGREGATE TONNAGE, AND AVERAGE TONNAGE OF ALL STEAMERS REGISTERED AT THE CUSTOMS DISTRICTS OF THE PACIFIC COAST DURING THE TEN YEARS 1880-1889.

		188 9			1881			1882			1888			1884	
CUSTOMS DISTRICTS.		Tonna	ge.		Tonns	ge.		Tonna	ge.		Tonna	ge.		Tonna	gr.
	Num- ber.	Total.	Aver- age.	Num- ber.	Total.	Aver- age.	Num- ber.	Total.	Aver-	Num- ber.	Total.	Aver-	Num- ber.	Total.	A ver
Total	805	110, 414. 61	362. 02	310	112, 434. 54	362. 69	326	120, 484. 94	369. 43	349	134, 435. 75	385. 20	384	146, 561. 82	381. 0
California	171	75, 965. 35	444. 24	168	75, 336, 06	448. 43	170	75, 385. 21	443. 44	185	87, 293. 86	471.86	185	97, 377. 34	526.1
San Diego	2	147. 94	78. 97	2	147.94	73. 97	5	255. 23	51.05	5	622. 63	124.53	4	209. 31	52.3
Wilmington									!	3	533. 90	177. 97	3	533.90	177.9
San Francisco	169	75, 817. 41	448. 62	166	75, 188. 12	452. 94	165	75, 129. 98	455. 33	174	85, 96 1. 13	494. 03	169	95, 620. 02	565.8
Humboldt	 -			ľ			ļ. .			3	176. 20	58.73	9	1, 014. 11	112.6
Oregon	91	28, 808, 00	316. 57	96	31, 761. 16	324. 09	106	39, 380. 46	371. 51	102	39, 155. 01	383. 87	121	40, 182. 07	332.0
Southern Oregon	12	662. 09	55, 17	12	661.17	55. 10	12	660. 95	55.08	12	706. 15	58. 85	11	806, 34	78.7
Yaquina		. 			 			•••••					5	1, 295. 29	250.0
Oregon	17	1, 037. 86	61.05	18	1, 399. 90	77.77	20	1, 521. 21	76.06	22	1, 686. 07	76. 64	30	2, 107. 43	70.2
Willamette	62	27, 108. 05	437. 23	68	29, 700. 09	436. 77	74	37, 1 9 8. 30	502. 68	6 8	36, 762. 79	540.63	75	35, 913 . 01	478.8
Washington — Puget sound.	43	5, 641. 26	131. 19	44	5, 337. 32	121.30	50	5, 669. 27	113. 39	62	7, 986, 88	128, 82	78	9, 002. 41	115.6
		1885			1886			1887			1888			1889	
CUSTOMS DISTRICTS.		Tonna	ge.	,	Tonns	ge.		Tonna	ge.	,	Tonna	ge.		Tonna	ge.
	Num- ber.	Total.	Aver-	Num- ber.	Total.	Aver- age.	Num- ber.	Total.	Aver-	Num- ber.	Total.	Aver- age.	Num- ber.	Total.	Aver-
Total	402	153, 808. 04	382. 61	416	156, 320. 30	375. 77	426	160, 139. 75	375. 91	459	168, 268. 58	366. 60	517	180, 496. 04	349.1
California	194	101, 757. 24	524. 52	198	103, 591. 98	523. 19	203	111, 049. 41	547. 04	225	115, 976. 96	515. 45	249	122, 405. 03	491.5
San Diego	2	120. 58	60. 29	2	84. 16	17.08	4	443. 45	110.86	7	1, 088. 50	155. 50	8	1, 136.01	142.00
Wilmington	3	236, 55	78. 85	3	307. 93	102. 64	8	307. 98	102. 64	5	580. 95	116. 19	7	889. 64	127.00
San Francisco	180	100, 386. 00	557.70	183	102, 178, 08	558. 35	187	109, 606. 65	586. 13	204	113, 725. 12	557.48	222	119, 177. 69	536.84
Humboldt	9	1,014.11	112.68	10	1,071.81	107. 18	9	691.38	76. 82	9	582. 39	64. 71	12	1, 201, 69	100.14
Oregon	129	42, 626. 54	330. 44	132	42, 517. 08	322. 10	137	38, 697, 60	282. 46	136	40, 616. 88	298. 65	148	39, 543. 21	267.18
Southern Oregon	12	1, 417. 39	118. 12	11	608.31	55. 30	11	538.08	48. 92	12	548. 10	45. 68	13	660.65	50.83
Yaquina	5	1, 307. 39	261.48	6	1, 406, 59	234. 43	10	3, 332. 84	333. 28	9	2, 202. 75	244. 75	11	2, 36 0. 85	214.63
Oregon	35	2, 320. 26	66. 29	34	2, 161. 17	63. 56	83	2, 318. 73	70. 26	34	2, 188. 38	64. 86	40	3, 003. 96	75.10
Willamette	77	37, 581. 50	488. 07	81	38, 341. 01	473, 35	83	32, 507. 95	391.66	81	35, 677. 65	440.46	84	33, 517. 75	399.65
Washington - Puget sound.	79	9, 424. 26	119. 29	86	10, 211. 24	118.74	86	10, 392. 74	120. 85	98	11, 674. 74	119. 13	120	18, 547. 90	154.57

TRANSPORTATION ON THE PACIFIC COAST.

COMPARATIVE STATISTICS—Continued.

TABLE 89.—AGGREGATES AND AVERAGES FOR THE TEN YEARS, 1880-1889—NUMBER, AGGREGATE TONNAGE, AND AVERAGE TONNAGE OF ALL SAILING VESSELS REGISTERED AT THE CUSTOMS DISTRICTS OF THE PACIFIC COAST DURING THE TEN YEARS 1880-1889.

		1880		1	1881	1	ļ	1882			1888			1884	
CUSTOMS DISTRICTS.		Tonna	ge.		Tonna	ge.	1	Tonna	ge.		Tonna	ge.		Tonna	ge.
	Num- ber.	Total.	Aver- age.	Num- ber.	Total.	Average.	Num- ber.	Total.	Average.	Num- ber.	Total.	Aver- age.	Num- ber.	Total.	Aver age.
Total	752	148, 409. 41	197. 34	748	158, 940. 98	212. 49	772	167, 351. 44	216. 78	812	186, 536. 21	229. 72	818	187, 626. 99	229. 3
California	652	117, 970, 52	180. 94	639	119, 392. 10	186, 84	656	127, 562, 38	194. 45	699	142, 874. 40	204. 40	690	136, 062. 88	197. 1
San Diego Wilmington	:	827. 32	55. 15	19	906.00	47. 68	22	2, 812. 94	127.86	17	735. 33 537. 74	43. 25 89. 62	10	135. 14 888. 64	13. 5 111. 0
San Francisco Humboldt	637	117, 143. 20	183. 90	620	118, 496. 10	191. 11	634	124, 749. 44	196.77	668 8	139, 903, 38 1, 697. 95	209. 44 212. 24	654 18	132, 053, 04 2, 986, 06	201. 9 165. 8
тедоп	38	7, 041. 33	185. 30	37	6, 906. 41	186. 66	43	8, 386. 08	195. 03	35	7, 866. 70	224. 76	42	10, 616. 41	252. 7
Southern Oregon Oregon Willamette	29	1, 322. 93 5, 718. 40	45. 62 635. 38	26 11	870. 14 6, 036. 27	33. 47 548. 75	30 13	2, 249. 59 6, 136. 49	74. 99 472. 04	24 11	1, 746 . 37 6, 120. 33	72. 77 556. 39	27 15	1, 780. 02 8, 836. 39	65. 9 589. 0
Vashington — Puget sound.	62	23, 388. 56	377. 23	72	32, 642. 47	453. 37	73	31, 402. 98	430. 18	78	35, 795. 11	458. 91	86	40, 947. 70	476. 1
		1885			1886			1887			1888			1889	
CUSTOMS DISTRICTS.	: 	Tonna	ge.		Tonna	ge.	·	Tonna	g ө.		Tonna	ge.		Tonna	ge.
	Num- ber.	Total.	Aver-	Num- ber.	Total.	Aver- age.	Num- ber.	Total.	Aver-	Num- ber.	Total.	Aver-	Num- ber.	Total.	Aver age.
Total	840	200, 329. 54	238. 49	829	184, 766. 45	222.88	783	189, 701. 85	242. 28	826	224, 931. 62	272. 31	841	248, 429. 78	295. 4
alifornia	706	149, 385. 36	211.59	687	144, 540, 95	210. 39	661	143, 042. 88	216. 40	692	165, 154. 87	238. 66	708	191, 822. 05	270.
San Diego	9	260. 39	28. 93	11	168. 84	15. 35	17	2, 076, 19	122, 13	24	1, 079. 12	44. 96	22	494. 91	22.
Wilmington	9	595. 38	66. 15	10	611.77	61.18	. 12	1, 429. 71	119.14	13	2, 017. 46	155. 19	12	681.04	56.1
San Francisco	674	146, 490. 05	217. 34	650	141, 235. 69	217. 29	616	137, 093. 00	222. 55	633	157, 338, 07	248. 56	658	187, 000. 65	284. 2
Humboldt	14	2, 039. 54	145. 68	16	2, 524. 65	157. 79	16	2, 443. 98	152. 75	22	4, 720. 22	214. 56	16	3, 645. 45	227.1
regon	47	10, 592, 29	225. 37	51	. 8, 316. 37	163, 07	43	7, 591. 11	176. 54	41	6, 727. 42	164.08	40	5, 721. 94	143.
Southern Oregon	2	136. 80	68. 40	3	154. 76	51. 59	1	16. 31	16. 31				2	118.46	59.
Oregon	31	1, 798. 29	57. 85	34	655. 03	19. 27	32	1, 033, 76	32. 31	33	2, 274. 55	68. 93	32	2, 387. 07	74.6
Willamette	14	8, 662. 20	618. 73	14	7, 506. 58	536. 18	" 10	6, 541, 04	654. 10	l: 8	4, 452. 87	556. 61	6	3, 216. 41	536.
Washington — Puget	87	40, 351, 80	463, 81	91	31, 909, 13	350, 65	79	39, 067, 86	494.58	93	53, 049, 38	570. 42	93	50, 885, 79	547. 1

COMPARATIVE STATISTICS—Continued.

TABLE **38.**—AGGREGATES AND AVERAGES FOR THE TEN YEARS, 1880-1889—NUMBER, AGGREGATE TONNAGE, AND AVERAGE TONNAGE OF ALL UNRIGGED CRAFT REGISTERED AT THE CUSTOMS DISTRICTS OF THE PACIFIC COAST DURING THE TEN YEARS 1880-1889.

		1880			1881			1882			1888			1884	
CUSTOMS DISTRICTS.		Tonna	age.		Tonna	age.		Tonns	ıge.		Tonns	age.		Tonna	ge.
	Num-	Total.	Aver-	Num- ber.	Total.	Aver- age.	Num ber.	Total.	Average.	Num- ber.	Total.	Average.	Num- ber.	Total.	A ver-
Total	67	11, 986. 73	178. 91	70	13, 050. 08	186. 43	68	12, 980. 45	190. 89	8	5, 972. 98	746. 62			
San Francisco, California.	61	8, 178. 43	134. 07	61	8, 178. 43	134. 07	61	8, 178. 43	184. 07						
Willamette, Oregon Puget sound, Washington.	6	3, 808. 30	634. 73	8	4, 833. 22 38. 43	604. 15 38. 43	7	4, 802. 02	686, 00	8	5, 972. 98	746. 62			
	<u> </u>	1885	!	<u>'</u>	1886			1887			1888		<u> </u>	1889	
CUSTOMS DISTRICTS.		Tonna	ge.		Tonna	ge.		Tonna	ge.		Tonna	ge.	-	Tonnag	70.
	Num- ber.	Total.	Aver- age.	Num- ber.	Total.	Average.	Num- ber.	Total.	Aver- age.	Num- ber.	Total.	Average.	Num- ber.	Total.	Aver-
Total	8	5, 972. 98	746. 62	8	5, 972. 98	746, 62	8	5, 972. 98	746. 62	8	5, 972. 98	746. 62	9	6, 078. 32	675.37
San Francisco, California.															-
Willamette, Oregon Puget sound, Washington.	8	5, 972. 98	746. 62	8	5, 972. 98	746. 62	8	5, 972. 98	746, 62	8	5, 972. 98	746, 62	8	5, 972. 98 105. 34	746.62 105.34

TABLE 34.—FLUCTUATIONS FOR THE TEN YEARS, 1880-1889—AVERAGE ANNUAL NUMBER OF ALL CRAFT AND AVERAGE ANNUAL TONNAGE REGISTERED AT THE CUSTOMS DISTRICTS OF THE PACIFIC COAST DURING THE TEN YEARS 1880-1889, TOGETHER WITH THE INDICATED YEARS OF HIGHEST, LOWEST, AND MEAN REGISTRATION.

			FLUCT	ATION	IN NUE	BER.					PLUCT	UATIO	ns in tonn	AGE.		
CUSTOMS DISTRICTS.	Annual average number of vessels	at	ghest oove orage.	be	west clow crage.		osest verage.	Fluc- tuation	Annual average regis-	8	ighest above erage.	ı	owest below verage.		Closest average.	Fluctuation
	regis- tered.	Year.	Num- ber.	Year.	Num- ber.	Year.	Num- ber.	in num- ber.	tered tonnage.	Year.	Tonnage.	Year.	Tonnage.	Year.	Tonnage.	in too
Total	1, 217	1889	1, 367	1880	1, 124	1887	1, 217	243	341, 429	1889	435, 004	1880	270, 802	1886	347, 060	164, 38
California	892	1889	957	1887	864	1882	887	93	242, 848	1889	314, 227	1880	202, 114	1886	248, 133	112.15
San Diego	21	1888	31	1885	11	1881	21	20	. 1, 370	1882	3, 068	1886	203	1883	1, 358	2,80
Wilmington	14	1889	19	1883	9	1886	13	10	1, 450	1888	2, 598	1885	832	1884	1,423	1,70
San Prancisco	845	1889	880	1887	803	1881	847	77	237, 882	1889	306, 178	1880	201, 139	1886	243, 414	106,00
Humboldt	24	1888	31	1883	11	1887	23	20	3, 687	1888	5, 303	1883	1, 874	1886	3, 596	1.0
Oregon	169	1889	196	1880	135	1884	163	61	51, 234	1885	59 , 1 9 2	1880	39, 658	1889	51, 238	19,59
Southern Oregon	13	1889	15	1884	11	1880	12	4	776	1885	1, 554	1888	548	1889	779	1,00
Yaquina	8	1889	11	1884	5	1888	9	6	1,984	1887	3, 333	1884	1, 205	1888	2, 203	2,00
Oregon	58	1889	72	1881	44	1884	57	28	3, 586	1889	5, 391	1881	2, 270	1883	3, 432	2,13
Willamette	93	1886	103	1880	77	1882	94	26	45, 682	1885	52, 217	1880	36, 6 35	1888	46, 104	15,5
Washington—Puget sound	156	1889	214	1880	105	1884	164	109	47, 347	1889	69, 539	1880	29, 030	1887	49, 461	40,5

· COMPARATIVE STATISTICS—Continued.

TABLE 35.—FLUCTUATIONS FOR THE TEN YEARS, 1880-1889—AVERAGE ANNUAL NUMBER OF STEAMERS AND AVERAGE ANNUAL TONNAGE REGISTERED AT THE CUSTOMS DISTRICTS OF THE PACIFIC COAST DURING THE TEN YEARS 1880-1889. TOGETHER WITH THE INDICATED YEARS OF HIGHEST, LOWEST, AND MEAN REGISTRATION.

		FL	UCTUATI	ONS IN	NUMBER	•					FLUCTUATI	ONS IN	TONNAGE.			
CUSTOMS DISTRICTS.	Annual average number of yeasels	ave	zhest oove orage.	be	west clow crage.		erage.	Fluc- tuation	Annual average regis-	8	ighest bove erage.	ī	owest below rerage.		losest iverage.	Fluc-
	regis- tered.	Year.	Num- ber.	Year.	Num- ber.	Year.	Num- ber.	in num ber.	tered tonnage.	Year.	Tonnage.	Year.	Tonnage.	Year.	Tonnage.	in ton- nage.
Total	389	1889	517	1880	305	1884	384	212	144, 331	1889	180, 496	1880	110, 415	1884	146, 562	70, 68
California	195	1880	249	1881	168	1885	194	81	96, 614	1889	122, 405	1881	75, 336	1884	97, 377	47, 065
San Diego	4	1889	8	1880	2	1884	4	6	421	1889	1, 136	1886	34	1887	443	1, 102
Wilmington		1889	7	1883	3	1883	3	4	484	1889	890	1885	237	1883	534	653
San Francisco	182	1889	222	1882	165	1886	183	57	95, 279	1889	119, 178	1882	75, 130	1884	95, 620	44, 048
Humboldt	9	1889	12	1883	3	1884	9	9	822	1889	1, 202	1883	176	1887	691	1, 02
Oregon	120	1889	148	1880	91	1884	121	57	38, 329	1885	42, 627	1880	28, 808	1887	38, 698	13, 819
Southern Oregon	12	1889	13	1884	11	1880	12	2	733	1885	1, 417	1887	538	1883	706	871
Yaquina	ì	1889	11	1884	5	1888	9	6	1,984	1887	3, 333	1884	1, 295	1888	2, 203	2, 036
Oregon	28	1889	40	1880	17	1884	30	23	1, 974	1889	3,004	1880	1,038	1884	2, 107	1, 966
Willamette	75	1889	84	1880	62	1884	75	22	34, 431	1886	38, 341	1880	27, 108	1889	33, 518	11, 23
Washington—Puget sound	75	1889	120	1880	43	1884	78	77	0, 389	1889	18, 548	1881	5, 337	1885	9, 424	13, 211

Table **36.**—FLUCTUATIONS FOR THE TEN YEARS, 1880–1889—AVERAGE ANNUAL NUMBER OF SAILING VESSELS AND AVERAGE ANNUAL TONNAGE REGISTERED AT THE CUSTOMS DISTRICTS OF THE PACIFIC COAST DURING THE TEN YEARS 1880–1889, TOGETHER WITH THE INDICATED YEARS OF HIGHEST, LOWEST, AND MEAN REGISTRATION.

		FL	CCTUATI	ONS IN	NUMBER.	•		i I			FLUCTUATI	ONS IN	TONNAGE.			
CUSTOMS DISTRICTS.	Annual average number	ge average. average.			osest verage.	Fluc- tuation	Annual average regis-	8	ighest vove erage.	1	owest below verage.		llosest average.	Fluc-		
	of vessels regis- tered.	Year.	Num- ber.	Year.	Num- ber.	Year.	Num- ber.	in num- ber.	tered	Year.	Tonnage.	Year.	Tonnage.	Year.	Tonnage.	in ton- nage.
Total	802	1889	841	1881	748	1883	812	93	189, 702	1889	248, 430	1880	148, 400	1887	189, 702	100, 030
California	679	1889	708	1881	639	1886	687	69	143, 781	1889	191, 822	1880	117, 971	1887	143, 043	73, 851
San Diego	17	1888	24	1885	9	1883	17	15	950	1882	2, 813	1884	135	1881	906	2, 678
Wilmington	1 0 -	1888	13	1883	6	1886	10	7	966	1888	2, 017	1883	538	1884	889	1, 476
San Francisco	644	1885	674	1887	616	188€	650	58	140, 149	1889	187, 001	1880	117, 143	1883	139, 903	69, 858
Humboldt	16	1888	22	1883	8	1886	16	14	2, 865	1888	4, 720	1883	1,698	1884	2, 986	3, 022
Oregon	42	1886	51	1883	35	1884	42	16	7, 977	1884	10, 616	1889	5, 722	1883	! 7,867	 4,894
Southern Oregon	2	1886	3	1887	1	1885	2	2	107	1886	155	1887	16	1889	118	139
Oregon	30	1886	34	1883	24	1882	80	10	1,611	1889	2, 387	1886	655	1883	1,746	1, 732
Willamette	11	1884	15	1889	6	1881	11	9	6, 323	1884	8, 836	1889	3, 216	1882	6, 136	5, 620
Washington-Puget sound	81	1888	93	1880	62	1887	79	31	37, 944	1888	53, 049	1880	23, 389	1887	39, 068	29, 660

COMPARATIVE STATISTICS—Continued.

TABLE 87.—FLUCTUATIONS FOR THE TEN YEARS, 1880-1889—AVERAGE ANNUAL NUMBER OF UNRIGGED CRAFT AND AVERAGE ANNUAL TONNAGE REGISTERED AT THE CUSTOMS DISTRICTS OF THE PACIFIC COAST DURING THE TEN YEARS 1880-1889, TOGETHER WITH THE INDICATED YEARS OF HIGHEST, LOWEST, AND MEAN REGISTRATION.

	FLUCTUATIONS IN NUMBER.						FLUCTUATIONS IN TONNAGE.									
CUSTOMN DISTRICTS.	Annual Highest above average number		Lowest below average.		Closest to average.		Fluc- tuation		Highest above average.		Lowest below average.		Closest to average.		Fluc-	
	of vessels regis- tered.	Year.		Num- ber.	Year.	Num- ber.	in num- ber.	tered tonnage.	Year.	Tonnage.	Year.	Tonnage.	Year.	Tonnage.	in ton- nage.	
Total	28	1881	70	1883	8	1889	9	62	8, 218	1881	13, 050	1883	5, 973	1889	6. 078	7.077
San Francisco	61								8, 178							
Willamette, Oregon	8	ļ		1880	6	1881	8	2	5, 476	1883	5, 973	1880	3, 808	1883	5, 973	2, 165
Puget sound, Washington	1	ļ	!			'			72	1889	105	1881	38	1889	105	. 67

TABLE \$8.—SHIPBUILDING FOR THE TEN YEARS, 1880-1889—NUMBER AND TONNAGE OF ALL STEAMERS, SAILING VESSELS, AND UNRIGGED CRAFT BUILT IN THE CUSTOMS DISTRICTS OF THE PACIFIC COAST DURING THE TEN YEARS 1880-1889.

TEN YEARS 1880-1889.		1880.		•				
	<u>'</u>	OTAL.	STE	AMERS.	SAILING VESSELS.		UNRIGGED CRAFT.	
CUSTOMS DISTRICTS.	Number.	Tonnage.	Number.	Tonnage.	Number.	Tonnage.	Number.	Tonnage.
Total	41	8, 943. 04	25	7, 642. 61	15	937. 44	1	362.9
California—San Francisco	18	5, 795. 16	7	4, 948. 85	11	846. 31		
Oregon	16	2, 465. 56	13	2, 027. 40	2	75. 17	1	362.9
Southern Oregon	2	56. 33	1	5. 43	1	50. 90		
Oregon	2	46. 84	1 1	22.57	1	24. 27		.
Willamette	12	2, 362. 39	11	1, 999. 40		•••••	. 1	362.95
Washington—Puget sound	7	682. 32	5	666. 36	2	15. 96		
		1881.						
Total	58	11, 417. 49	21	3, 010. 41	35	7, 382. 15	2	1, 02L S
California—San Francisco	26	4, 555. 70	5	1, 359. 62	21	3, 197, 08		
Oregon	22	4, 330. 89	13	1, 616. 50	7	1, 689. 46	2	1, 024. 93
Southern Oregon	1	388. 59			1	388. 59		
Oregon		3 03. 41	2	280. 74	2	22. 67		
Willamette	17	3, 63 8. 89	11	1, 335. 76	4	1, 278. 20	2	1,001.95
Washington—Puget sound	10	2, 530. 90	3	35. 29	7	2, 495. 61		
		1882.	···					
Total	74	15, 770. 52	28	6, 727. 35	46	9, 043. 17		
California	36	6, 997. 62	11	3, 620. 53	25	3, 377. 09		
San Diego.	2	265. 90	1	18.56	1	247. 34		
San Francisco	34	6, 731, 72	10	3, 601, 97	24	3, 129, 75		

Total	74	15, 770. 52	28	6, 727. 35	46	9, 043. 17	
California	36	6, 997. 62	11	3, 620. 53	25	3, 377. 09	
San Diego	2	265. 90	1	18. 56	1	247. 34	
San Francisco	34	6, 731. 72	10	3, 601. 97	24	3, 129. 75	
Oregon	20	4, 835. 71	10	2, 699. 81	10	2, 135. 90	
Southern Oregon	6	1, 068. 29			6	1, 068. 29	
Oregon	6	614. 32	4	222. 86	2	391.46	
Willamette	8	3, 153, 10	- 6	2, 476. 95	2	676. 15	
Washington—Puget sound	18	3, 937. 19	7	407. 01	11	3, 530. 18	•

COMPARATIVE STATISTICS—Continued.

TABLE 38.—SHIPBUILDING FOR THE TEN YEARS, ALL CRAFT, 1880-1889—Continued.

		1883.						
	TOTAL.			AMERS.	SAILING VESSELS.		UNRIGUED CRAFT.	
CUSTOMS INSTRICTS.	Number.	Tonnage.	Number.	Tonnage.	Number.	Tonnage.	Number.	Tonnage.
Total	91	16, 737. 97	34	4, 019. 17	56	11, 547. 84	1	1, 170. 9
California	52	9, 047. 47	11	2, 408. 96	41	6, 638. 51		
San Diego	1	12. 29			1	12. 29		
San Francisco	46	8, 1 68 . 09	11	2, 408. 96	35	5, 759, 13		
Humboldt	5	867. 09		•••••	5	867. 09		•••••
Pregon	20	3, 739. 99	14	878. 09	5	1, 690, 94	1	1, 170. 9
Southern Oregon	5	1, 421. 51	1	58. 74	4	1, 362. 77		
Oregon	11	2, 061. 60	9	5 62. 47	1	328. 17	1	1, 170. 9
Willamette	4	256. 88	4	256.88		• • • • • • • • • • • • • • • • • • • •	 	
Vashington—Puget sound	19	3, 950. 51	9	732. 12	10	3, 218. 3 9		
		1884.						
Total	84	10, 612. 36	42	5, 865. 99	42	4, 746. 37		
;alifornia	39	6, 300. 99	13	3, 963. 79	26	2, 337. 20		
	3	31. 94			3	31.94		i
San Diego San Francisco	30	5, 037, 04	12	3, 889. 32	18	1, 156. 72		
Humboldt	8	1, 232, 01	1	83. 47	5	1, 148. 54		
regon	24	1, 659. 40	15	976. 93	9	682. 47		
Southern Oregon	3	503.34	1	104, 50	2	398. 84		!
Oregon	11	433. 13	6	317. 01	5	116. 12		
Willamette	10	722. 93	8	555. 42	2	167. 51		
Washington—Puget sound	21	2, 651. 97	14	925. 27	7	1, 726, 70		
	<u>'</u> ;	1885.	"		<u> </u>		<u> </u>	
Total	73	11, 001. 28	38	8, 867. 37	35	2, 133. 91		
California	37	6, 052. 09	14	4, 764. 02	23	1, 288. 07		
Wilmington	1	29. 64			1	29. 64		
San Francisco	34	5, 730. 89	14	4, 764, 02	20	966, 87	!	
Humboldt	2	291.56		· · · · · · · · · · · · · · · · · · ·	2	291.56	,j	
regon	23	3, 373. 06	16	3, 075. 35	7	297. 71]	
Southern Oregon	5	439. 14	2	208. 91	3	230. 23		
Oregon	8	380. 53	5	347. 61	3	32. 92		
Willamette	10	2, 553. 39	9	2, 518, 83	1	34. 56		
	1 1		11 [4		1.	i

STATISTICS OF TRANSPORTATION.

COMPARATIVE STATISTICS—Continued.

TABLE 38.—SHIPBUILDING FOR THE TEN YEARS, ALL CRAFT, 1880-1889—Continued. 1886.

	T	OTAL,	STE	AMERS.	SAILING VESSELS.		UNRIGGED CRAF	
CUSTOMS DISTRICTS.	Number.	Tonnage.	Number.	Tonnage.	Number.	Tonnage.	Number.	Tonnage
Total	58	5,913.92	23	3, 023. 31	35	2, 890, 61		threigh.
California	29	3, 084. 22	9	2, 039. 24	20	1, 044. 98		
San Diego	2	26, 12			2	26. 12		
San Francisco	25	2, 855.14	8	1, 981, 54	17	873, 60		
Humboldt	2	202, 96	1	57, 70	1	145. 26		Canada
	10	1 251 40		ent 98		726, 63		
regon	16	1, 351. 49	9	624. 86	7	101111		440000
Southern Oregon	2	610. 16	· · · · · · · ·		2	610. 16	*******	
Oregon	5	136, 40	1	33. 02	4	103, 38		
Willamette	9	604. 93	8	591. 84	1	13.09		********
Vashington—Puget sound	13	1, 478. 21	.5	359. 21	8	1, 119. 00	*********	******
		1887.						•
Total	71	9, 106. 24	32	3, 750. 45	39	5, 355. 79		
alifornia	36	4, 388. 04	12	2, 241. 14	24	2, 146. 90		
San Diego	1	8, 28		· ·	1	8, 28		
San Francisco	1 (1)	3, 758, 45	12	2, 241, 14	21	1, 517. 31	j'	
Humboldt	2	621.31			2	621. 31		
regon	1,1	1, 227, 17	14	1, 117. 48	2	109. 69		
Southern Oregon	3	263, 10	2	174. 27	1	88. 83		
Yaquina	1	65.49	1	65. 49	'			
Oregon	6	341.63	5	320.77	. 1	20. 86		
Willamette	6	556, 95	6	556. 95	j			
Washington—Puget sound	19	3, 491. 03	6	391. 83	13	3, 099, 20		· • • • • • • • • • • • • • • • • • • •
		1888.			<u>'</u>			
Total	104	21,956.43	55	12, 710. 22	48	9, 140. 87	1	105.
California	60	11,490.77	28	8, 683, 04	32	2, 807. 73		_=
San Diego	6	793, 03	4	745, 80	2	47. 23		
Wilmington		75. 24	1	36, 48	2	38. 76		
San-Francisco		9, 687. 31	22	7, 891, 60	25	1, 795, 71		
Humboldt		935. 19	1	9. 16	3	926. 03		
)regon	23	4, 702. 19	17	3, 141, 59	. 6	1, 560. 60		·
Southern Oregon	3	651, 75	2	154.89	1	496. 86		
Yaquina	1	91.56	1	91. 56			j	
Oregon		1, 302, 33	5	238. 59	5	1, 063, 74		
Willamette	9	2, 656, 55	9	2, 656, 55		-,		
Washington—Puget sound	21	5, 763, 47	10	885, 59	10	4, 772. 54	1	105.

COMPARATIVE STATISTICS—Continued.

TABLE **39.**—SHIPBUILDING FOR THE TEN YEARS, ALL CRAFT, 1880-1889—Continued. 1889.

<u> </u>	TOTAL.		STEAMERS.		SAILING VESSELS.		UNRIGGED CRAFT.	
CUSTOSS DISTRICTS.	Number.	Tonnage.	Number.	Tonnage.	Number.	Tonnage.	Number.	Tonnage.
Total	110	17, 909. 48	71	12,784.70	39	5, 175. 18		
California	55	9, 497. 96	34	7, 790. 70	21	1, 707. 26		
San Diego	2	38. 59			2	38. 59		
San Francisco	48	8, 606, 65	31	7, 551. 16	17	1, 055. 49		
Humboldt	5	852, 72	3	239. 54	2	613. 18		
Oregon	30	4, 159. 91	21	2, 873. 36	9	1, 286. 55		
Southern Oregon	4	1, 169. 82			4	1, 169. 82		
Yaquina	3	220. 11	3	220. 11	ļj.		 	
Отедон	13	544. 42	8	427.69	5	116.73		
Willamette	10	2, 225. 56	10	2, 225 . 56	-			
Washington—Puget sound	25	4, 251. 61	16	2, 070. 24	9	2, 181. 37		(

RECAPITULATION FOR THE TEN YEARS.

Total for 10 years.	764	129, 368. 73	369	68, 351. 18	390	58, 353. 33	5	2, 664. 22
1880	41	· 8, 943. 04	25	7, 642. 61	15	937. 44	1	362. 99
1881	58	11, 417. 49	21	3, 010. 41	35	7, 382. 15	2	1, 024. 93
1882	74	15, 770. 52	28	6, 727. 35	46	9, 043. 17		!
1883	91	16, 737. 97	34	4, 019. 17	56	11, 547. 84	1	1, 170. 96
1884	84	10, 612. 36	42	5, 865. 99	42	4, 746. 37		· · · · · · · · · · · · · · · · · · ·
1885	73	11, 001. 28	38	8, 867. 37	35	2, 133. 91		
1886	58	5, 913. 92	23	3, 023. 31	35	2, 890. 61		· · · · · · · · · · · · · · · · · · ·
1887	71	9, 106. 24	32	3, 750. 45	39	5, 355. 79		
1888	104	21, 956. 43	55	12, 710. 22	48	9, 140, 87	1	105.34
1889	110	17, 909, 48	71	12, 734. 30	39	5, 175, 18		
				<u>. </u>	<u></u>		1	

STATISTICS OF TRANSPORTATION.

COMPARATIVE STATISTICS—Continued.

TABLE 39.—SHIPBUILDING FOR THE TEN YEARS, 1880-1889—NUMBER AND TONNAGE OF ALL STEAMERS BUILT IN EACH CUSTOMS DISTRICT OF THE PACIFIC COAST DURING THE TEN YEARS 1880-1889, CLASSIFIED AS PROPELLERS AND SIDE-WHEEL AND STERN-WHEEL STEAMERS.

1880.

				METHODS OF	PROPULSION	r . ·		
CUSTOMS DISTRICTS.	Alls	teamers.	Pro	peller.	Side-wheel.		Stern	-w heel.
	Number.	Tonnage.	Number.	Tonnage.	Number.	Tonnage.	Number.	Tonnage
Total	25	7, 642. 61	10	402.48	9	5, 804. 35	6	1, 435.
California—San Francisco	. 7	4, 948. 85	4	264. 26	2	4, 630. 01	1	54.
Oregon	. 13	2, 027. 40	4	75. 52	6	701. 68	3	1, 250 .
Southern Oregon	. 1	5. 43	1	5. 43				
Oregon		22. 57	1	22. 57		· · · · · · · · · · · · · · · · · · ·		
Willamette	. 11 .	1, 999. 40	2	47. 52	6	701. 68	3	1, 250.
Washington—Puget sound	. 5	666, 36	2	6 2. 70	1	472. 6 6	2	131.
	•	1881.	<u> </u>					
Total	!	3, 010. 41	10	887. 12	4	325.06	7	1, 798.2
California—San Francisco	. 5	1, 358. 62	3	422. 08		•••••	2	936.5
Dregon	. 13	1, 616. 50	4	429. 75	4	325, 06	5	861. 6
Oregon	. 2	280.74	1	23.06	1		1	257. €
Willamette	. 11	1, 335, 76	8	406, 69	4	325, 06	4	604. 61
Washington—Puget sound	. 3	35 . 29	3	35. 29		•••••	ļ	
	<u>'</u>	1882.	<u> </u>		<u>., </u>		<u>" </u>	 :
Total	28	6, 727. 35	15	3, 915. 90	3	253. 10	10	2, 558. 35
California	. 11	3, 620. 53	8	3, 442. 91	2	163. 33	1	14.29
San Diego	. 1	18. 56			1	18. 56		
San Francisco		3, 601. 97	8	3, 442. 91	1	144.77	1	14.9
Этедоп	10	2, 699. 81	3	286. 09	1	89.77	6	2, 323. 86
Oregon	4	222, 86	2	25. 38			2	197.48
Ologon		222.00					θ . I	2, 196.47
Willamette		2, 476. 95	1	2 6 0. 71	1 '	89. 77	4	
•	.' 6		1	260. 71 186. 90	1	89. 77	3	220. 11
Willamette	.' 6	2, 476. 95	1		1	89. 77		
Willamette	.' 6	2, 476. 95 407. 01	1			89. 77		
Willamette	7	2,476.96 407.01 1883.	1 4	186. 90	1	89. 77	3	220. 11
Willamette Washington — Puget sound Total California — San Francisco	34	2, 476. 95 407. 01 1883. 4, 019. 17	1 4	3,097.03	1		7	220. li 922. l4
Willamette Washington — Puget sound Total California — San Francisco	34	2, 476, 95 407, 01 1863. 4, 019, 17 2, 408, 96	27	3, 097, 03 2, 375, 23			7	220. 11 922. 14 92. 73
Willamette Washington — Puget sound Total California — San Francisco Oregon	34 11 14 1	2, 476, 95 407, 01 1683. 4, 019, 17 2, 408, 96 878, 09	1 4 4 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	3, 097. 03 2, 375. 23 438. 23			7	220. 11 922. 14 92. 73
Willamette Washington — Puget sound Total California — San Francisco Oregon Southern Oregon.	34 11 14 1	2, 476, 98 407, 01 1983. 4, 019, 17 2, 408, 96 878, 09 58, 74	1 4 4 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	3, 097. 03 2, 375. 23 438. 23 58. 74			7 1 3	922.14 33.73 438.86

TRANSPORTATION ON THE PACIFIC COAST.

COMPARATIVE STATISTICS—Continued.

TABLE 89.—SHIPBUILDING FOR THE TEN YEARS, STEAMERS, 1880-1889-Continued.

1884.

	METHODS OF PROPULSION.									
CUSTOMS DISTRICTS.	All s	teamers.	Pro	peller.	Side	-wheel.	Stern	-wheel.		
	Number.	Tonnage.	Number.	Tonnage.	Number.	Tonnage.	Number.	Tonnage.		
Total	42	5, 865. 99	24	1, 428. 00	6	2, 583. 37	12	1, 854. 6		
California	13	3, 963. 79	7	860. 66	2	2, 182. 87	4	920.7		
San Francisco	12	3, 880. 32	7	860. 66	2	2, 182. 37	3	837.		
Humboldt	1	83. 47	<u> </u>		ļ	· · · · · · · · · · · · · · · · · · ·	1	83.		
regon	15	976. 93	10	370. 06	4	4 01. 0 0	1	205. 8		
Southern Oregon	1	104.50	1	104. 50						
Oregon	6	317. 01	3	111.14			1	205. 8		
Willamette	8	555. 42	4	154. 42	1 4	401.00				
Washington—Puget sound	14	925. 27	7	197. 28	<u> </u>		7	727. 9		
		1885.								
Total	38	8, 867. 37	22	3, 219. 04	5	2, 998. 51	11	2, 649. 8		
California—San Francisco	14	4, 764. 02	8	1, 773. 89	1	1, 257. 14	5	1, 732. 1		
regon	16	3, 075. 35	10	978. 35	3	1, 685. 64	3	411.8		
Southern Oregon	2	208. 91	2	208. 91						
Oregon	5	347. 61	4	817.08		1 605 64	1	30. 8		
Willamette	9	2, 518. 83	4	452. 36	3 :	1, 685. 64	2	380. 8		
Washington—Puget sound	8	1, 028. 00	•	466. 80	1	55. 78	3	505.4		
		1886.								
Total	23	3, 023. 31	13	1, 145. 71			10	1, 877. 6		
California	9	2, 039. 24	4	818. 74			5	1, 220. 5		
San Francisco	8	1, 981. 54	- 4	818.74			4	1, 162. 8		
Humboldt	1	57. 70					1	57.7		
regon	9	624. 86	6	155. 88		· · · · · · · · · · · · · · · · · · ·	3	468. 9		
Oregon	1	33. 02	1	33. 02	ļi.					
Willamette	8	591.84	5	122. 86	[·····) ¹ 3	46 8. 9		
Washington—Puget sound	5	35 9 . 21	3	171.09			2	188, 1		
		1887.								
Total	32	3, 750. 45	26	2, 720. 48	2	347. 62	4	682. 3		
alifornia—San Francisco	12	2. 241. 14	11	1, 932, 60	1	308, 54				
regon	14	1, 117. 48	11	621. 26	1	89. 08	2	457. 1		
Southern Oregon		174. 27	2	174. 27						
	1	65. 49	1 1	65. 49			ll			
Yaquina			11 5		11]]			
Yaquina	5	320. 77	5	320.77		ae		427		
Yaquina			11 5		1	39. 08	2	457.]		

STATISTICS OF TRANSPORTATION.

COMPARATIVE STATISTICS—Continued.

TABLE 39.--SHIPBUILDING FOR THE TEN YEARS, STEAMERS, 1880-1889—Continued. 1888.

		1888.					•				
	METHODS OF PROPULSION.										
CUSTOMS DISTRICTS.	All s	teamers.	Pro	peller.	Side-whoel.		Stern-wheel				
	Number.	Tonnage.	Number.	Tonnage.	Number.	Tonnage.	Number.	Tonnage			
Total	55	12, 710. 22	43	7, 749. 66	3	2, 427. 60	9	2.332			
California.	28	8, 683. 04	27	6, 668. 59	1	2, 014. 45					
San Diego	4	745. 80	4	745. 80							
Wilmington	1	36. 4 8	. 1	36. 48		i 	·				
San Francisco	22	7, 891. 60	21	5, 877. 15	1	2, 014. 45	"				
Rumboldt	1	9. 16	1	9. 16							
Oregon	17	8, 141. 59	9	710. 48	1	816. 46	7	2, 114.			
Southern Oregon	2	154. 89	2	154. 89							
Yaquina	1	91.56	1	91.56			ļ				
Oregon		238. 59	3	120. 21			2	118.3			
Willamette	9	2, 656. 55	3	343. 82	1	316. 46	5	1. 996.2			
Washington—Puget sound	10	885. 59	7	370. 59	1	96, 69	2	418.3			
Total	71	1889.	51	7 142 22	5	1 202 41	1 15				
		12, 734. 30		7, 163. 33	ļ	1, 393. 61	15	4, 177.3			
California	34	7, 790. 70	27	5, 914. 72	1	119.72	6	1, 756.3			
San Francisco	81	7, 551. 16	26	5, 904, 55	1	119.72	4	1, 536.8			
Humboldt	3	239. 54	1	10. 17			2	229.37			
Oregon	21	2, 873. 36	15	701.49	1	659. 41	5	1,512.4			
Yaquina	3	220. 11	3	220. 11							
Oregon	8	427. 69	7	329. 62			. 1	98.07			
Willamette	10	2, 225. 56	5	151. 76	1	659. 41	4	1,414.39			
Washington—Puget sound	16	2, 070. 24	9	547. 12	∯ ∰ 3	614. 48	4	908.64			
RECAPIT	TULATIO	N FOR THE	TEN YE.	ARS.							
Total for 10 years	369	68, 351. 18	241	31, 728. 75	37	16, 133. 22	91	20, 489.21			
	25	7, 642. 61	10	402. 48	9	5, 804. 35	6	1, 425.78			
L881	21	3, 010. 41	10	887. 12	4	325. 06	7	1,798.23			
882	· 28	6, 727. 35	15	3, 915. 90	3	253. 10	10	2, 556. 35			
883	34	4, 019. 17	27	3, 097. 03			7	922, 14			
884	42	5, 865. 99	24	1, 428. 00	. 6	2, 583, 37	12	1,854.62			
885	38	8, 867. 37	22	3, 219. 04	5	2, 998. 51	11	2, 649. 82			
886	23	3, 023. 31	13	1, 145, 71			10	1, 877. 60			
887	32	3, 750. 45	26	2, 720. 48	2	347. 62	(4 ·	682.35			
888	55	12, 710. 22	43	7, 749. 66	3	2, 427. 60	i 9	2,532.86			
889	71	12, 734. 30	51	7, 163. 33	5	1, 393. 61	15	4,177.35			

CONGRESSIONAL APPROPRIATIONS.

TABLE 40.—CONGRESSIONAL APPROPRIATIONS FOR THE SURVEY, IMPROVEMENT, AND MAINTENANCE OF RIVERS AND HARBORS ON THE PACIFIC COAST, BY PERIODS, FROM THE EARLIEST DATE OF APPROPRIATION TO 1890, INCLUSIVE, BY LOCALITIES.

LOCALITIES.	Date of earliest appropria- tion.	Appropriations up to and including 1879	Appropriations from 1880 to 1889, inclusive.	Appropriations by act of Congress September 19, 1890.	Total appropriations up to date.
Total	1852	\$2,315,000	\$5,527,200	\$2, 122, 600	\$9,964,80
neral expenses and surveys	1866	50,000			50,00
lifornis	1852	1, 158, 000	2, 283, 750	596, 500	4, 038, 25
egon	1866	1, 107, 000	3, 164, 950	1, 493, 100	5, 765, 05
ashington	1880		78, 500	33, 000	111,50
lifornia:					
Humboldt harbor	1881		80,000		80, 0
	1884		62, 500		62, 5
	1886	***********	75, 000		75, 0
	1888	romponous.	125, 000		125, 0
	1890	***************************************	************	80,000	80,0
Total for Humboldt harbor	1881		342, 500	80,000	422, 5
Oakland harbor	1874	415, 000			415, 0
	1880		120,000		120, 0
	1882	 :	200, 000+		200, 0
<i>;</i>	1884		139, 600		139, 6
	1886		60,000	'	60, 0
	1888		350, 000		350, 0
	1890		•••••	250,000	250.0
Total for Oakland harbor	1874	415, 000	869, 600	250, 000	1, 534, 6
Petaluma river	1880		16, 000		16, 0
	1882		14, 000		14,0
	1888		2,000		2,0
	1890		-, · · · · · · · · · · · · · · · · · · ·	4,000	4.0
Total for Petaluma river.	1880		32, 000	4,000	36. 0
Sacramento and Feather rivers	! 1875	50,000			50, 0
	1880		45, 000		45, 0
	1881		60,000		60,0
	1882		250, 000		250, 0
	1884		40,000		40, 0
	1888		20,000		20,0
	1890		•••••	30,000	30,0
Total for Sacramento and Feather rivers	1875	50, 000	415, 000	30, 000	495, 0
San Diego harbor and river (survey of San Diego and Newport)	1852	111,000	••••		111,0
	1886		5,000		5, 0
	1888		1,000		1,0
	1890			60, 500	60, 5
Total for San Diego harbor and river	1852	111,000	6, 000	60, 500	177, 5
San Francisco harbor	1872	75,000			75, 0
	1686		11,000		11,0
Total for San Francisco harbor	1872	75, 000	11, 000		86, 0
San Joaquin river	1876	20,000	•••••		20, 0
	1880		20, 000		20, 0
	1881		80,000		80, 0
	1884		20, 000		20, 0
·	1886		18, 750	[18, 7
	1888	ļ	25, 000		25, 0
	1890			. 75,000	73, 0
Total for San Joaquin river	1876	20,000	163, 750	75, 000	258, 7
San Luis Obispo harbor	1888		25, 000		25 , 0
				1	
•	1890			40,000	40, 0

STATISTICS OF TRANSPORTATION.

${\bf CONGRESSIONAL\ APPROPRIATION 8--Continued.}$

TABLE 40.—APPROPRIATIONS FOR PACIFIC COAST, BY LOCALITIES—Continued.

LOCALITIES.	Date of earliest appropriation.	Appropriations up to and including 1879.	Appropriations from 1880 to 1889, inclusive.	Appropriations by act of Congress September 19, 1890.	Total appropriations up to date.
California—Continued.					
Wilmington harbor	1879	\$4 87, 00 0			\$487, 900
	1880	·····	\$35,000		35, 000
	1881		33,000	}	33, 000
	1882		100,000		100,000
	1884		50,000		50,000
	1886		75,000		75, 000
	1888 1890		90, 000	. \$34,000	90, 000 34, 000
The last William steer hashes	1879	497.000	383,000	34, 000	904, 000
Total for Wilmington harbor	1019	487, 000	383,000	34,000	305,000
Mokelumne river	1884		8, 500		8, 500
	1886		2, 500		2, 500
	1888		2,000	·····	2. 000
Total for Mokelumne river	1884		13.000		13, 900
Napa river	1888		7, 500		7,500
Mapa 11401	1890		,,,,,,,	. 10,000	10, 000
Total for Napa river	1888		7, 500	10,000	17, 500
	•			15,500	
Redwood harbor	1884		3,000	•••••	3, 000
	1886		5, 000	••••••	5, 000
	1888		7, 400		7, 400
Deep water harbor survey (\$5,000)	1890			. 13, 000	13.000
Total for Redwood harbor	1884		15, 400	13, 000	28, 400
Total for Humbeldt harbor	1881		342, 500	80,000	422,500
Total for Oakland harbor	1874	415, 000	869, 600	250,000	1, 534, 600
Total for Petaluma river	1880		32,000	4,000	36, 000
Total for Sacramento and Feather rivers	1875	50, 000	415,000	30, 000	495,000
Total for San Diego harbor and river	1852	111,000	6,000	60, 500	177,500
Total for San Francisco harbor	1872 1876	75,000	11,000	## 000	86,000
Total for San Joaquin river	1	20,000	163, 750	75, 000	258.730
Total for Wilmington harbor		407.000	25,000	40,000	65,000
Total for Mokelumne river.		487, 000	383,000 13,000	34,000	904,600 13,000
Total for Napa river	1888		7,500	10,000	17,500
Total for Redwood harbor	1884		15,400	13,000	28.400
Total for California	1852	1, 158, 000	2, 283, 750	598, 500	4, 038, 250
Oregon:			1		
Coos bay	1879	40, 000	: ,	-	40,000
•	1881		90, 600	1	90,000
•	1886		33, 750		33, 750
	1888		50,000		50,000
	1890		i	125, 000	125,000
Total for Coos bay	1879	40, 000	173, 750	125, 000	338, 759
Willamette (upper) and Yamhill	1871	84, 500	·····		84,500
•	1880		12, 000		12,000
	1881		15, 000		15,000
	1882		5, 000		5,000
	1884		10, 000		10.000
	1886		10,000		10.000
	1888 1890		29, 000	. 11,000	29,000 11,000
Maria de William and A. S. C. C.	} 	-			
Total for Willamette and Yambill	1871	84, 500	81,000	11,000	176,500

CONGRESSIONAL APPROPRIATIONS—Continued.

TABLE 40.—APPROPRIATIONS FOR PACIFIC COAST, BY LOCALITIES—Continued.

LOCALITIES.	Date of earliest appropriation.	Appropriations up to and including 1879.	Appropriations from 1880 to 1889, inclusive.	Appropriations by act of Congress September 19, 1890.	Total Appropriatio up to date.
				1	
n—Continued.		ı	l	'	
'illamette (lower) and Columbia	1866	\$ 300, 000		.' 	\$ 300,
•	1880	·	\$45,000	·	45.
	1881	,	45, 000		45,
•	1882		100, 000		100,
	1884	,	100, 000	······	100,
•	1886	·	75, 000	į	75,
·	1888		100, 000		100.
	1890	•••••••	•••••	\$100,000	1 0 0,
Total for Willamette and Columbia	1866		465, 000	100.000	865,
Total for Willamette and Yamhill	1871	300, 000 84, 500	81, 000	11,000	176,
·			l		
Total for Willamette, Columbia, and Yamhill	1866	384, 500	546,000	111,000	1, 941,
lumbia (upper) and Snake rivers	1872	160,000		.	160
	1880	!	15, 000	···········	15
	1881		15, 000	l	15.
	1832	•••••	6, 000	'	6
	1884		20, 000	······································	20
·	1886		10,000		10
	1888		10, 000		. 10
	1890	!	•••••	90,000	90
Total for Columbia and Snake rivers.	1872	160,000	76, 000	90, 000	326
iumbia at Cascades	1876	340,000			340
	1880	l	200, 000		200
•	1882	<u> </u>	265, 000		265
	1884		150,000		150
	1886	·····	187, 000	\	187
	1888	·····	300, 000		300
	1890	ļ	••••••	435,000	435
Total for Columbia at Cascades	1876	340,000	1, 102, 000	435, 000	1. 877
wer Columbia and tributaries	1882		500		
•	1884		2,000		2
	1888		2, 500		2
Total for lower Columbia and tributaries	1882	·	5, 000		3
wer Columbia at mouth	1878	10, 000			•
The Containing at Model and the Containing at th	1882	10,000	7, 500	• •••••	10 7
	1884		100,000	,	100
	1886		187, 500		187
,	1000	' 	500, 000		500
	1890			475, 000	475
Total for lower Columbia at mouth	1878	10,000	795. 000	475. 000	1, 280
Total for upper Columbia and Snake rivers		160, 000	76,000	90,000	326
Total for Columbia at Cascades	1876	340, 000	1, 102, 000	435, 000	1, 877
Total for lower Columbia and tributaries	1882		5,000		5
Total for Columbia and tributaries	1872	510,000	1, 978, 000	1, 000, 000	3, 486
quina bay	1880	i	40, 000	i	40
	1881		10,000		10
•	1882		60, 000		60
	1884		50, 000		50
	1886		75, 000		75
	1888		150, 000		130
	1890	1	·	. 165, 000	165
Total for Yaquina bay	1880		385,000	165, 000	550
lamook hay	1888	1	E 0004		
	1889		5, 200	. 500	5
Total for Tillamook bay	1888		5. 200	500	5
			i	į	
balem bay and river	1400			10 000	• • • • • • • • • • • • • • • • • • • •
halem bay and riverrbor of refuge at Port Orford	1890 1876	150,000		. 10,000	10 1 5 0

STATISTICS OF TRANSPORTATION.

CONGRESSIONAL APPROPRIATIONS—Continued.

TABLE 40.—APPROPRIATIONS FOR PACIFIC COAST, BY LOCALITIES—Continued.

LOCALITIES.	Date of earliest appropriation.	Appropriations up to and including 1879.	Appropriations from 1880 to 1889, inclusive	Appropriations by act of Congress September 19, 1890.	Total appropriations up to date.
regon—Continued.	I			i	
Coquille river	1880		\$30, 000		\$30,00
	1886		20,000		20,00
	1888		25, 000	ļ	25, 00
	· 1890			\$30,000	30.00
Total for Coquille river	1880		75, 000	30, 000	105, 00
Umpqua river	1871	\$22,500		1	22, 50
	1888		2, 000	ļ	2, 00
Total for Umpqua river	1871	22, 500	2, 000		24.50
Siuslaw river	1890		• • • • • • • • • • • • • • • • • • • •	50,000	50, 0 0
Youngs and Klaskuine rivers	1890			1, 600	1, 60
Total for Cons bay	1879	40, 000	173, 750	125,000	338, 75
Total for Willamette, Columbia, and Yambill	1866	384, 500	546,000	111,000	1, 041, 50
Total for Columbia and tributaries	1872	510,000	1, 978, 000	1,000,000	3, 486. 00
Total for Yaquina bay	1880		385,000	165,000	550, 00
Total for Tillamook bay	1888		5, 200	500	5, 70
Total for Nehalem bay and river	1830		· • • • • • • • • • • • • • • • • • • •	10,000	10,000
Total for harbor of refuge at Port Orford	1879	150,000			150,00
Total for Coquille river	1880		75, 000	30,000	105,00
Total for Umpqua river	1871	22,500	2,000	!	24, 500
Total for Siuslaw	1890			50,000	50, 600
Total for Oregon	1866	1, 107, 000	3, 164, 950	1, 493, 100	5, 765, 050
Vashington:	! !	•	-		
Cowlitz river	1880		2,000		2,000
•	1881		1,000	 	1,000
	1882		1,000		1,000
!	1384	!	2,000	:	2,000
	1883		2,000	i	2,000
	1888		3,000		3,000
	1890	· · · · · · · · · · · · · · · · · · ·	· · · · · · · · · · · · · · · · · · ·	8,000	R, 00.)
Total for Cowlitz river	1880		11,000	8,000	19,000
The the section of th				!	
Tributaries: Skagit river	1880		2, 500		2 540
Skagit and Snohomish rivers.	1882		20, 000		20,000
Stillaguamish, Skagit, and Nooksachk rivers	1884		10,000	1	10.000
Snohomish and Nooksachk rivers.	1886		10,000	İ	10,000
Skagit. Snohomish, and Nooksachk rivers.	1888		15, 000		15,000
For all rivers	1890			12,000	12.00
				!	
Total for tributaries		i	57, 500	12,000	69, 500
	1880		11,000	8, 000	19. a. u
Total for Cowlitz river	'				
Total for Cowlitz river and tributaries	1880		68, 500	20,000	RE, 540
Total for Cowlitz river and tributaries				20,000	
	1882		3, 000	20,000	1.00
Total for Cowlitz river and tributaries	1882 1884		3, 000 5, 00)	20,000	3, 400 5, 600
Total for Cowlitz river and tributaries	1882		3, 000	20,000	3,000
Total for Cowlitz river and tributaries	1882 1884 1888		3, 000 5, 00)		3, 600 5, 600 2, 600
Total for Cowlitz river and tributaries	1882 1884 1888 1890		3, 000 5, 00) 2, 000	3, 000 3, 000	1,000 5,000 2,000 1,000
Total for Cowlitz river and tributaries Chehalis river Total for Chehalis river Canal from Lake Union to Puget sound	1882 1884 1888 1890 1882	· · · · · · · · · · · · · · · · · · ·	3, 000 5, 00) 2, 000	3, 000 3, 000 10, 000	3, 600 5, 600 2, 660 3, 660 12, 660
Total for Cowlitz river and tributaries	1882 1884 1888 1890 1882		3, 000 5, 00) 2, 000	3, 000 3, 000	2,600 2,600 2,600 1,600

TRANSPORTATION ON THE GREAT LAKES.

[WITH AN ADDENDUM REPORT ON LAKE CHAMPLAIN.]

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TRANSPORTATION ON THE GREAT LAKES.

[WITH AN ADDENDUM REPORT ON LAKE CHAMPLAIN.]

BY THOMAS J. VIVIAN.

The Great Lakes, from which statistics of transportation are presented in the accompanying report, not only constitute one of the grandest geographical features of the North American continent, but they also afford the largest system of deep water inland navigation on the globe, containing as they do more than one-half its area of fresh water. Their combined area is 95,060 square miles, Lake Superior having 31,200, Lake Michigan 22,450, and Lakes Huron and St. Clair 24,210 square miles of surface. In the order of their topographical relationship, and considering them as vast expansions of the upper waters of the St. Lawrence river, they lie, beginning at the northwest, in the following order: Superior, Michigan, Huron, St. Clair, Erie, and Ontario. Lying in a general direction east and west, between the 41st and 47th parallels, the system extends from tidewater on the St. Lawrence and (including the Erie canal) from tidewater at New York 1,400 miles into the heart of the continent, the head of Lake Superior and the St. Lawrence tidewater being on the northernmost parallel, with Chicago and New York on the southern. The western extremity of the system is 1,700 miles only from the waters of the Pacific, and for one-half the distance between the two oceans these waters divide the Dominion from the Great Republic. The range of this fresh water system, it will be observed, is entirely within the limits of the north temperate zone, on the line on which population most freely moves westward, where final settlement is most compact, and where the climatic conditions insure the largest returns to capital and labor.

LEVELS AND WATERSHEDS.

Erie, Huron, and Michigan are nearly on the same level, the extreme difference between the first and the last named being only about 9 feet, while Superior is only 20 feet higher than Michigan, or 29 feet above Erie. In referring to the data of the levels of the Great Lakes in the chapter entitled "The physical features of the United States," the compiler of the "Statistical Atlas" for the Ninth Census says:

The divide between the Great Lakes and the waters flowing into the Mississippi and its tributaries is everywhere low, and at the lower end of Lake Michigan is so much so that only a small amount of excavation has been required to cause the waters which formerly flowed into the lake to run toward the Gulf of Mexico (via the Mississippi river).

The only great change of level between any two of the lakes is that which exists between Lake Ontario and Lake Erie, the former being 326 feet lower than the latter, about half the descent from one to the other being made in that single plunge known as the Falls of Niagara.

To what has been said may be added the geographical fact that 150 miles northwest of Duluth are the fountains of 3 of the greatest drainage systems of the continent, if not of the world, the physical conditions being such as to send flowing water northward into the ocean through Hudson bay, southward to the ocean through the Mississippi valley and the Gulf of Mexico, and eastward to the ocean through the lakes and St. Lawrence river.

The north drainage system has no traffic practicability; the commercial importance of that flowing southward is treated of in the chapter of this volume entitled "Transportation on the rivers of the Mississippi valley"; while the present chapter will show both the practicability and importance of the east drainage system.

Most of the preceding facts and figures, and many others that have not been referred to, will be found conveniently tabulated in the following statement:

LAKES.	Area of water sur- face (square miles).	Area of watershed (square miles).	Aggregate area of basin (square miles).	Elevation of mean surface above sur- face level (feet).	Maximum depth (feet).	Deepest point below surface level (feet).	Mean annual rain and snow fall (inches).	Average discharge at outlets (cubic feet)
Total	95, 060	168, 700	263, 760	a 516.8	a 755	a 339	31	a 219, 000
Lake Ontario	7, 240	21, 600	28, 840	246. 6	739	491	34	300,000
Lake Erie	9, 960	22,700	32, 660	572. 9	210	· · · · · · · · · · · · · · · ·	34	265, 000
Lakes Huron and St. Clair	24, 210	35, 100	59, 310	581.3	750	169	32	225, 000
Lake Michigan	22, 450	37, 700	60, 150	581.3	870	289	30	ļ
Lake Superior	31, 200	51, 600	82, 800	601.8	1, 008	406	29	86, 000
		_	a Average.	•		1 "	'	

Into the causes of the commercial importance of the Great Lakes it is scarcely the province of this article to enter. They constitute an accepted fact to every one at all acquainted with the geography and resources of this country, while the accompanying map will serve to indicate the extraordinary extent, productive power, and trade possibilities of the territory which is tributary to this greatest of all lacustrine systems. Debouching on the great lakes lie the states of Minnesota, Wisconsin, Illinois, Indiana, Michigan, Ohio, Pennsylvania, and New York, 8 empires embracing 416,360 square miles, which according to the present census have a population of 26,029,533; which contain the commercial metropoli of the land; whose products and demands are almost illimitable, and whose wealth is the moving financial factor of the nation. Of course there is no justifiable inference that all this population, all this producing power, all these needs, financial dictatorship, and commercial weight are tributary to the traffic of the lakes, but the fact remains that these states reach to the water's edge of either Superior, Michigan, Huron, Erie, or Ontario, and that while they are not tributary to the lakes they certainly contribute to the volume of their trade and to their importance as water ways. While this report, too, deals only with the American commerce of the lakes, it must not be forgotten that with but few exceptions they are bounded on the north by the dominion of Canada, and that the traffic of the ports along the northern shores is steadily growing. It will not be inappropriate to say here that the paramount question relating to the lake marine to-day is the construction of the so-called "20-foot channel"; for, while the great lakes are deep enough for any fleet, the connecting rivers have shoal places which seriously limit the draft of vessels passing through them. The "20-foot channel" contemplates the provision of a continuous passage of that depth through the connecting waters between Chicago, Duluth, and Buffalo, the cost of which work was estimated by General O. M. Poe to be \$2,379,058, these figures of course

EARLY RECORDS.

being outside of the then authorized improvements.

It is a matter of history that in 1534 Jacques Cartier, a French navigator, acting under a commission from Francis I, sailed through the straits of Belle Isle and up the St. Lawrence; discovered Canada; landed at a point where is now situated Montreal, and took possession of this new territory in the name of the king of France. From 1603 to 1615 Samuel De Champlain, another French voyager, extended these discoveries and became the first governor of the French settlements in lower Canada. He explored Lake Champlain, gave to it his name, commenced a settlement at Quebec, and extended his explorations as far west as Lake Huron. Up to 1678 a regular sailing vessel had not been placed on the lakes, but in November of that year La Salle and Father Hennepin set sail on a schooner of 10 tons burden, which they had launched at a point near the present city of Kingston, Canada, out on Lake Ontario, and as they were unable to navigate beyond the mouth of the Niagara river, they continued their journey by land. In May, 1679, they launched the Griffin, the first sailing vessel to navigate the upper lakes, and in September, on their voyage westward, reached Green bay. The Griffin, laden with furs, was lost on the return trip, La Salle and Father Hennepin having continued their exploration to the Illinois and Mississippi rivers. From 1700 until 1756 the construction and navigation of sailing vessels was largely, if not entirely, confined to Lake Ontario.

In 1759 the English commenced to build and navigate sailing vessels upon lakes Erie and Ontario. Two sloops were launched at Oswego in 1760 named the Oswego and the Ontario, and about the same time a sloop and schooner, each of 60 tons burden, were built, while at the conquest of Canada in 1763 the English fleet was increased by the addition of the French merchant and whale vessels which then passed into the victor's possession.

Up to the time of the American Revolution there was little increase in the lake shipping, but from that time the commerce of Lake Ontario increased, and up to 1800 it exceeded the commerce of all the other lakes, although the first American steamer upon Lake Erie was built at Erie, Pennsylvania, in 1797.

Before entering upon a consideration of the lake traffic of to-day it will be well to look back for a short time to the beginnings of the trade and at the initial steps in the development of the resources of the circumjacent territory.

One of the chapters of the volume on transportation issued by the Tenth Census was entitled "History of Steam Navigation in the United States", and from that portion which treats of the Lakes the following extracts are drawn:

Previous to the war of 1812 quite a flourishing commerce was carried on upon Lake Ontario by sailing craft, but it was not till 1816 that the side-wheel steamer Ontario was built at Sacketts Harbor, going into service in April of the following year. This was the first steamer on the American side, the Frontenac coming out at about the same time on the Canadian side. The Ontario measured 231.57 tons, and had beam engines, 34-inch cylinders, of 4-foot stroke. She was broken up in 1832. The second steamer * * * was the Walk-in-the-water, which was launched at Black Rock, New York, in 1818. She was of 342 tons burden, and had low pressure engines. She arrived at Detroit August 22, 1818, on her first trip, and afterward traded as far as Mackinaw, Michigan, and was finally wrecked on the night of November 1, 1818, at Buffalo, New York. The Sophia, of 49.70 tons, was also built at Sacketts Harbor in 1818, so that up to 1820 there had been built only 4 steamers on the Lakes, including 1 steamer of 208.57 tons, built on Lake Champlain, as against 71, measuring 14,207.53 tons, on western rivers [those of the Mississippi valley], and 52, measuring 10,564.43 tons on the Atlantic coast. Within the next decade there had been built 8 steamers on the Lakes. The Superior, measuring 346.38 tons, came out at Buffalo in 1822; the Martha Ogden, 48.63 tons, at Sacketts Harbor in the following year, and the Pioneer, measuring 124.67 tons, at Buffalo in 1825, followed in 1826 by the Niagara, of 156.92 tons, the Henry Clay, of 301 tons, and at Cleveland by the Enterprise, measuring 219 tons, the William Penn, at Eric, measuring 214.71 tons, and 1 small craft of 93.82 tons, making 1,505.13 for the decade. * * * The steamer Sheldon Thompson, of 241 tons, built in 1829, made the first trip from Lake Erie to Chicago in 1832. She took up soldiers for the Black Hawk war. * * * The first steamer that arrived at Saginaw was the Governor Marcy, of 161 tons, commanded by Captain R. G. McKenzie. She went upon a regular route to that port about the year 1837. * *

SHIPBUILDING IN THE FORTIES.

The first propeller built on the Lakes was the Vandalia, a sloop-rigged craft of about 138 tons. She was launched at Oswego in 1841. She was followed by the Oswego, of 150 tons, in 1842. In 1843 there were 7 propellers built at various points, as follows: The Hercules, 272 tons, at Buffalo; the Samson, 250 tons, at Perrysburg; the Emigrant, 275 tons, at Cleveland; the Racine, 150 tons, at Oswego; the New York, 150 tons, at Oswego; the Chicago, 150 tons, at Oswego; the Independence, 262 tons, at Chicago. In 1844 the Porter, of 310 tons, was built at Buffalo, and in 1845 the Syracuse came out at Oswego; the Princeton at Perrysburg, and the Phœnix at Cleveland. * * * The service of what is now known as the "river tugs" was inaugurated in 1845 by the side-wheel steamer Romeo, of 180 tons. She was followed by the Tecumseh, the Little Erie, the Telegraph No. 2, and the propeller Odd Fellow, in 1848. This service is now performed by a class of powerful tugs, that are used to tow sailing vessels through Detroit river, and for wrecking purposes. * * * Up to 1850 there had been built on the Lakes 50 propellers measuring 16,427 tons. * * * In 1855 the steam inspection service reported the number of steamers on the northern lakes as follows: licensed steamers, 128, measuring 68,089 tons, and unlicensed steamers, 115, measuring 21,252 tons. The next authentic statement of this tonnage was by the register of the Treasury in 1870, when 642 steamers, measuring 142,973.09 tons, were reported.

The reader who is curious to closely follow the growth of the lake fleet after the last date given in the preceding review up to the present time can do so without delay by referring to Tables 24 to 32 inclusive, or by turning to that part of this text wherein the subject is treated of under the head of "Comparative statistics."

PLAN OF THE TABLES.

For the presentation of the statistical results of the investigation by the Eleventh Census into the industry of Transportation on the Great Lakes and St. Lawrence river 33 tables have been prepared, their number and titles being as follows:

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Table 1.- Equipment of fleets in general.
     Table 2.—Equipment of fleets, by classes.
     Table 3.—Percentages of tonnage and valuation.
     Table 4.—Occupation, by class groups.
     Table 5.—Construction, by localities.
     Table 6.—Construction, by materials.
Traffic operations:
     Table 7.—Freight movement in general, by lakes.
     Table 8.—Freight movement in general, by principal ports.
     Table 9.—Freight movement in general (summarized).
     Table 10.—Freight receipts, by extended list of commodities.
     Table 11.—Freight shipments, by extended list of commodities.
     Table 12.—Freight movement of combined receipts and shipments, by extended list of commodities.
     Table 13.—Total freight movement, by extended list of commodities.
     Table 14.—Freight movement of unclassified commodities (A).
     Table 15.—Freight movement of unclassified commodities (B).
     Table 16.—Freight values.
     Table 17.-Freight movement, by cargo tonnage.
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Equipment, occupation, and construction:

Table 18.—Passenger truffic.

Earnings and expense accounts:

Table 19.—Financial account in general.

Table 20.—Expense account in detail.

Table 21.—Employés and wages, by ports.

Table 22.—Employés and wages, by lake totals.

Table 23.—Fuel account.

Comparative statistics:

Table 24.—Steamers, by classes, in 1880 and 1889.

Table 25.—Expense accounts in 1880 and 1889.

Table 26.—Crews and wages in 1880 and 1889.

Table 27.—Traffic in 1880 and 1889.

Table 28.—Fleets for the 10 years, 1880-1889.

Table 29.—Vessel tonnages for the 10 years, 1880-1889.

Table 30.—Tonnage fluctuations for the 10 years, 1880-1889.

Table 31.—Ship building for the 10 years, 1880-1889 (general).

Table 32.—Ship building for the 10 years, 1880-1889 (steamers).

Congressional appropriations:

Table 33.—Appropriations for lakes, by detailed localities.

While such a list as the preceding is useful to show at a glance the scheme on which the tabulation of the statistics has been carried out, it sometimes fails to show explicitly what a table contains, because of the necessity for condensation of titles, and in order to more clearly indicate the "Plan of the tables" the following synopsis is printed:

EQUIPMENT.

Table 1, "Equipment of fleets in general", shows the number, tonnage, and value of all steamers, sailing vessels, and unrigged craft, of over 5 tons burden, owned on the Great Lakes and St. Lawrence river in 1889, with separate entries by ports, grouped by lakes.

Table 2, entitled "Equipment of fleets, by classes", divides the entries of Table 1, separating the total number, tonnage, and value of all steamers, sailing vessels, and unrigged craft into classes, and retaining the separate entries by ports and the lake groups. The steamers are divided into 5 classes, namely, side-wheel passenger boats, propellers carrying both passengers and freight, propellers carrying freight only, tugs, and all other classes, while the sailing and unrigged vessels are divided into 3 classes, schooners, lake barges, and all other classes. By this allotment the number, tonnage, and value of each class of craft operating on the Great Lakes and St. Lawrence river may be readily seen.

OCCUPATION.

Table 3, entitled "Percentages of tonnage and valuation", gives the number, gross and net tonnage, estimated carrying capacity, commercial valuation, and value per gross ton of all vessels owned on the Great Lakes and St. Lawrence river, the great difference between this and the preceding table being that there are no entries by ports, that each lake fleet is subdivided into 17 classes of occupation, and that the percentage of both tonnage and valuation of each class to the lake totals are worked out.

Table 4, "Occupation, by class groups", gives the number, gross and net tonnage, estimated carrying capacity. commercial value, and value per gross ton of each of the 17 classes of vessels on each of the Great Lakes and St. Lawrence river, the headings in this case being the class of craft, and the entries being the respective lake totals of each class.

CONSTRUCTION.

There are 2 construction tables. The first, Table 5, "Construction, by localities", gives the number, tonnage, value, average value per ton, and average tonnage according to material of construction, of all vessels documented in the ports of the Great Lakes and St. Lawrence river, given by separate entries for each port.

The second construction table, Table 6, "Construction, by materials", gives the number, tonnage, value, average value per ton, and average tonnage of the same craft, but grouped according to material of construction, in contradistinction to the preceding table, in which the grouping is done by lakes.

TRAFFIC.

The statistics of traffic are presented in 12 tables, numbered consecutively from 7 to 18, inclusive. The first, Table 7, "Freight movement in general, by lakes", contains the receipts, shipments, total movement, percentage of traffic and commodity, excess of receipts over shipments, and excess of shipments over receipts of all freight moved on the Great Lakes and St. Lawrence river, dividing the commodities into the 4 following comprehensive classes:

Class I .- Products of agriculture.

Class II.—Products of mines and quarries.

Class III.—Other products (such as animal products and lumber).

Class IV.—Manufactures, miscellaneous merchandise, and other commodities.

This table is expanded into 6 subsidiary tables giving the receipts, shipments, and total movement of these classes of commodities, by lakes, together with the same calculations of percentages that are worked out in the table of totals.

Table 8, "Freight movement in general, by principal ports", follows the same plan of presenting the receipts, shipments, and total movement of all products, together with the percentage of traffic and commodity, except that it gives these figures for the 31 principal ports, with the smaller trading points presented together under the head of "All other ports", and a separate division or group being made for each of the 13 commodities embraced in the 4 comprehensive classes of products referred to in the preceding paragraph.

The third traffic table, Table 9, is a summarized statement of the freight movement, receipts, shipments, and total tonnage on the Great Lakes and St. Lawrence river entered up for all ports in the order of their traffic importance.

Table 10, entitled "Freight receipts, by extended list of commodities", is a statement of the receipts, by ports grouped according to their respective lakes, of a still more extended list of the articles embraced under the comprehensive heads of "Products of agriculture", "Products of mines and quarries", "Other products", and "Manufactures", the detailed list of commodities being increased from 13 to 26.

Table 11, "Freight shipments, by extended list of commodities", is a statement of the port shipments of all commodities similarly arranged with the preceding table of receipts.

Table 12, "Freight movement of combined receipts and shipments, by extended list of commodities", is a statement of both the port receipts and shipments of the articles given in Tables 10 and 11.

Table 13, "Total freight movement, by extended list of commodities", gives the receipts and shipments of all commodities by lake totals only, the detailed entries for the ports being omitted.

Table 14, "Freight movement of unclassified commodities (A)", gives the receipts and shipments by ports of those commodities for which no weight was furnished and which do not appear in the other tables, such commodities, for instance, as unweighed packages, cases, and parcels.

Table 15, "Freight movement of unclassified commodities (B)", is a description and an estimated weight in pounds of each unit of measurement mentioned in Table 14, worked out to an estimated result in tons.

Table 16. In this table, entitled "Freight values", an estimated value per ton is put on all the commodities moved, and the result in total values is worked out.

In the preceding tables of freight movement the volume of traffic was the aggregate of receipts and shipments for all ports, but in Table 17, entitled "Freight movement, by cargo tonnage", an aggregation is made of the single item of receipts or of shipments, according to whichever happened to be the larger.

Table 18. The passenger movement recorded in this table is confined to that on board steamers, is entered for the different ports for which a passenger traffic was reported, and is classified as belonging to regular passenger lines, to excursion boats, and to ferry service.

EARNINGS AND EXPENSE ACCOUNTS.

Table 19, entitled "Financial account in general", is almost a balance sheet of the industry of Water Transportation on the Great Lakes, showing, as it does, the gross earnings, expenses, and remaining net earnings of the lake fleet reporting financial operations, the entries being made for the ports of registration, with totals for those lakes to which the ports belong.

In making out Table 20, entitled "Expense account in detail", the expenses of reporting vessels, following the same division of ports of registration and lakes, are divided into the various items of port charges, wages, provisions, current repairs, fuel (for the steamers), other running expenses, commissions, insurance, taxes, and office expenses, the 10 principal items which constitute the shore and running expenses.

EMPLOYÉS.

A still further subdivision of expenses is made in Table 21, "Employés and wages, by ports". Here, however, one item only is selected, that being the interesting one of wages, and the average wages paid in each port to all grades of employés from captain to cook and from first engineer to ship's boy is given, together with the number of persons making up the ordinary crews required as the complement of all reporting craft, the number of persons receiving employment during the year in the operation of these vessels, and the average wages paid to each grade of employés in the respective ports.

Table 22, "Employés and wages, by lake totals", is really a résumé of Table 21, taking up, as it does, the total number of employés of each grade and the total monthly wages paid on the different lakes for such vessels as reported on wages and crews.

FUEL ACCOUNT.

Table 23, entitled "Fuel account", applies, of course, only to steamers. These steamers, however, are grouped under the class heads of (1) passenger, passenger and freight, and freight steamers; (2) ferryboats; (3) towboats, and (4) miscellaneous. For each of these classes and for each port the number of tons of coal and the number of cords of wood consumed in their operations are set down, together with the cost of the material.

COMPARATIVE STATISTICS.

All the tables which have been previously considered present only what may be called the positive statistics for 1889, whereas the 9 tables numbered inclusively 24 to 32 give the comparative statistics either for the 2 years 1880 and 1889 or for the 10 years 1880-1889, inclusive. In the first 4 tables the 2 years of report alone are taken into consideration, the items being gathered from the transportation volume issued by the Census Office for 1880 and from the schedules of the present inquiry. Because of the restricted scope of the inquiry by the Tenth Census, comparisons of a very limited character only can be afforded. All that is possible in this direction in fact is given in Tables 24, 25, 26, and 27, which deal respectively with the number, tonnage, and value; the expense account; the crews and wages, and the traffic in bulk of the steamer fleets, no investigation having been made into either the equipment or the operations of sailing vessels. In Table 24 a partial classification of the steamer fleet has been possible, and the equipment figures are allotted to passenger and freight boats, ferry, towing, and harbor, and miscellaneously employed steamers; but in Tables 25, 26, and 27 the unit of comparison is the very comprehensive one of a total for all the lakes, whether for the items of expenses, wages, crews, or freight and passenger traffic.

Tables 28, 29, 30, 31, and 32 have been largely made up from information furnished this office by the Commissioner of Navigation. In Table 28 there are given the figures showing the number and tonnage of all steamers, sailing vessels, and barges registered in the customs districts of the Great Lakes for the 10 years 1880-1889, inclusive.

In Table 29 the average tonnage of each steamer, sailing vessel, and barge fleet belonging to each port is worked out for the decade in question, while Table 30 gives the fluctuations from the annual average number and the annual average tonnage of all vessels registered in the different customs districts. Tables 31 and 32 are records of shipbuilding for the period in question, the first giving the number and tonnage of all steamers, sailing vessels, and barges built during those years in the various customs districts, and the second (Table 32) furnishing the data to show the number and tonnage of all steamers built in the various districts, arranged according to their methods of propulsion, that is, whether propellers or side-wheel or stern-wheel steamers.

CONGRESSIONAL APPROPRIATIONS.

The last of the tables (Table 33) gives the amounts appropriated by Congress for the survey, improvement, and maintenance of the harbors on the Great Lakes and of the rivers flowing into them, from the date of the earliest appropriation down to and including that of the act of Congress of September, 1890. These sums, so far as the grouping of periods is concerned, are given: first, up to and including 1879; second, from 1880 to 1889, inclusive; third, the appropriations in 1890, and fourth, the total appropriations from first to last. So far as localities are concerned, these sums are given with considerable detail, the items not only being furnished for each lake but for each river, bay, and harbor on which the government money has been spent.

LOCALITIES OF REGISTRATION, EQUIPMENT, AND TRAFFIC.

At the risk of introducing a long parenthesis it will be advisable, before taking up the consideration of what the tables show, to explain the various localities to which the records of registration, equipment, or traffic are allotted.

In the first place, there are on the Great Lakes and St. Lawrence river 20 ports of registration, which, grouped by states and by lakes and rivers, are as follows:

BY STATES.

Ogdensburg, New York. Cape Vincent, New York. Alexandria Bay, New York. Clayton, New York. Oswego, New York. Rochester, New York. Suspension Bridge, New York. Buffalo, New York. Dunkirk, New York. Erie, Pennsylvania. Cleveland, Ohio. Sandusky, Ohio. Toledo, Ohio. Detroit, Michigan. Grand Haven, Michigan, Marquette, Michigan. Port Huron, Michigan. Chicago, Illinois. Milwaukee, Wisconsin. Duluth, Minnesota.

BY LAKES AND RIVERS.

Ogdensburg, St. Lawrence river. Cape Vincent, St. Lawrence river. Alexandria Bay, St. Lawrence river. Clayton, St. Lawrence river. Oswego, Lake Ontario. Rochester, Lake Ontario. Suspension Bridge, Lake Erie. Buffalo, Lake Eric. Dunkirk, Lake Erie. Cleveland, Lake Eric. Sandusky, Lake Erie. Toledo, Lake Erie. Erie, Lake Erie. Grand Haven, Lake Michigan. Chicago, Lake Michigan. Milwaukee, Lake Michigan. Detroit, Lake Huron. Port Huron, Lake Huron. Marquette, Lake Superior. Duluth, Lake Superior.

The preceding 20 ports, called ports of registration, are those in which all the vessels of the Great Lakes are documented, and which form the recognized centers where the Treasury Department keeps its lists of vessels, their character, tonnage, and construction. In the reports on the Atlantic coast, Gulf of Mexico, and Pacific coast, these ports of registration have been strictly followed in the tabulation of the statistics of equipment and of traffic, but because of the exigencies of locality it has been found necessary to make arbitrary assignments of the statistics in both the Mississippi valley and the Great Lakes. In the report on the Mississippi valley, for instance, it will be found that the segregation of all statistics is made by the rivers and fluvial systems, while in the case of the Great Lakes and St. Lawrence river it has been found advisable to make allotment of the statistics of equipment to what may be called the ports of frequent hail, and the statistics of traffic to the ports where records of business are kept. These two lists of ports are given below:

PORTS OF ASSIGNMENT FOR STATISTICS OF EQUIPMENT.

LAKE SUPERIOR.

Ashland, Wisconsin.
Baraga, Michigan.
Bayfield, Wisconsin.
Duluth, Minnesota.
Marquette, Michigan.
Pequaming, Michigan.
Republic, Michigan.
8t. Marys Falls, Michigan.
Superior, Wisconsin.

LAKES HURON AND ST. CLAIR.

Algonac, Michigan.
Alpena, Michigan.
Bay city, Michigan.
Caseville, Michigan.
Cheboygan, Michigan.
Detroit, Michigan.
East China, Michigan.
East Saginaw, Michigan.
Marine city, Michigan.
Mount Clemens, Michigan.
New Baltimore, Michigan.
Oscoda, Michigan.
Port Huron, Michigan.
Saginaw, Michigan.
St. Clair, Michigan.

LAKE MICHIGAN.

Benton Harbor, Michigan. Charlevoix, Michigan. Chicago, Illinois. Escanaba, Michigan. Fort Howard, Wisconsin. Frankfort, Michigan. Grand Haven, Michigan. Green Bay, Wisconsin.

LAKE MICHIGAN—continued.

Holland, Michigan. Kenosha, Wisconsin. Kewaunee, Wisconsin. Ludington, Michigan. Manistoe, Michigan. Manitowoc, Wisconsin. Menominee, Michigan. Milwaukee, Wisconsin. Montague, Michigan. Muskegon, Michigan. North Port, Michigan. Onekama, Michigan. Pentwater, Michigan. Peshtigo, Wisconsin. Petoskey, Michigan. Racine, Wisconsın. St. James, Michigan. St. Joseph, Michigan. Saugatuck, Michigan. Sheboygan, Wisconsin. South Haven, Michigan. Spring lake, Michigan. Sturgeon bay, Wisconsin. Suttons bay, Michigan. Traverse city, Michigan. Troy, Wiscousin. Waukegan, Illinois. Waukesha, Wisconsin. Whitehall, Michigan.

LAKE ERIM.

Ashtabula, Ohio. Avon, Ohio. Buffalo, New York. Cleveland, Ohio. Dunkirk, New York.

LAKE ERIE-continued.

Erie, Pennsylvania.
Fairport, Ohio.
Fremont, Ohio.
Gratwick, Ohio.
Huron, Ohio.
Lorain, Ohio.
Milan, Ohio.
Norwalk, Ohio.
Port Clinton, Ohio.
Put in Bay, Ohio.
Sandusky, Ohio.
Suspension Bridge, New York.
Toledo, Ohio.
Tonawanda, New York.

LAKE ONTARIO.

Cape Vincent, New York.
Charlotte, New York.
Chaumont, New York.
Hamlin, New York.
Henderson, New York.
Medina, New York.
Oswego, New York.
Pultneyville, New York.
Rochester, New York.
Sacketts Harbor, New York.
Troy, New York.
Wilson, New York.
Youngstown, New York.

ST. LAWRENCE RIVER.

Alexandria Bay, New York. Clayton, New York. Ogdensburg, New York.

PORTS OF ASSIGNMENT FOR STATISTICS OF TRAFFIC.

LAKE SUPERIOR.

Ashland, Wisconsin.
Baraga, Michigan.
Bay Mills, Michigan.
Duluth, Minnesota.
Houghton, Michigan.
Marquette, Michigan.
Ontonagon, Michigan.
Pequaming, Michigan.
8t. Marys Falls, Michigan.
Superior, Wisconsin.
Two Harbors, Minnesota.
Washburn, Wisconsin.

LAKES HURON AND ST. CLAIR.

Algonac, Michigan.

LAKES HURON AND ST. CLAIR—continued.

Alpena, Michigan.
Bay city, Michigan.
Black river, Michigan.
Cheboygan, Michigan.
Detroit, Michigan.
East Saginaw, Michigan.
East Tawas, Michigan.
Forestville, Michigan.
Marine city, Michigan.
Marysville, Michigan.
Oscoda, Michigan.
Port Huron, Michigan.
Port Sanilac, Michigan.
Rogers, Michigan.
St. Clair, Michigan.

LAKES HURON AND ST. CLAIR-continued.

St. Ignace, Michigan. Sand Beach, Michigan. Sebawaing, Michigan.

LAKE MICHIGAN.

Benton Harbor, Michigan.
Charlevoix, Michigan.
Chicago and South Chicago, Illinois.
Cross village, Michigan.
Depere, Wisconsin.
Elk Rapids, Michigan.
Escanaba, Michigan.
Fayette, Michigan.
Ford River, Michigan.
Fruitport, Michigan.

PORTS OF ASSIGNMENT FOR STATISTICS OF TRAFFIC-Continued.

LAKE MICHIGAN—continued.

Gladstone, Michigan. Glen Arbor, Michigan. Grand Haven, Michigan. Green Bay, Wisconsin. Kenosha, Wisconsin. Kewaunee, Wisconsin. Leland, Michigan. Ludington, Michigan. Manistee, Michigan. Manistique, Michigan. Manitowoc, Wisconsin. Marinette, Wisconsin. Menominee, Michigan. Michigan city, Indiana. Milwaukee, Wisconsin. Montague, Michigan. Muskegon, Michigan. Oconto, Wisconsin. Pentwater, Michigau. Peshtigo Harbor, Wisconsin. Petoskey, Michigan. Port Washington, Wisconsin. Racine, Wisconsin.

St. Joseph, Michigan.

LAKE MICHIGAN-continued.

Sheboygan, Wisconsin. South Haven, Michigan. Traverse, Michigan. Two Rivers, Michigan. Waukegan, Illinois.

LAKE ERIE.

Ashtabula, Ohio.
Buffalo, New York.
Cleveland, Ohio.
Dunkirk, New York.
Erie, Pennsylvania.
Fairport, Ohio.
Huron, Ohio.
Kelleys Island, Ohio.
Lorain, Ohio.
Sandusky, Ohio.
Toledo, Ohio.
Tonawanda, New York.

LAKE ONTARIO.

Cape Vincent, New York. Charlotte, New York. Chaumont, New York. LAKE ONTARIO—continued.

Dexter, New York.
Henderson, New York.
Millins Bay, New York.
Oak Orchard, New York.
Olcott, New York.
Oswego, New York.
Pultneyville, New York.
Sacketts Harbor, New York.
Sandy creek, New York.
Sodus Point, New York.
Wilson, New York.
Youngstown, New York.
Fairhaven, New York.

ST. LAWRENCE RIVER.

Alexandria Bay, New York.
Chippewa bay, New York.
Clayton, New York.
Massena, New York.
Grindstone island, New York.
Morristown, New York.
Ogdensburg, New York.
Thousand Island Park, New York.
Waddington, New York.

WHAT THE TABLES SHOW.

Following the consideration of the "Plan of the tables", the next step will be an inquiry as to what the tables show.

From the first of the whole series of the 33 tables it appears that on the Great Lakes and St. Lawrence river in the year ending December 31, 1889, the floating equipment numbered 2,737 craft, having a tonnage of 920,294 and an estimated commercial value of \$48,580,174. The components of this fleet were 1,467 steamers, with a tonnage of 595,813 and a value of \$40,868,824; 962 sailing vessels, with a tonnage of 185,081 and a value of \$4,238,850, and 308 unrigged craft, with a tonnage of 139,400 and a value of \$3,472,500. The various vessels that make up the preceding totals are entered for the ports which were given in the list on page 9 entitled "Ports of assignment for statistics of equipment", together with totals for the lakes on which these ports are found. These totals show that on Lake Superior there were at the close of 1889 167 vessels of all kinds, with a tonnage of 39,653 and a value of \$2,763,500; that the fleets on lakes Huron and St. Clair numbered 726, with a tonnage of 196,216 and a value of \$9,114,400; that the floating equipment on Lake Erie numbered 667, with a tonnage of 392,903 and a value of \$22,163,824; that on Lake Ontario there were 131 vessels, with a tonnage of 15,859 and a value of \$676,300; while on St. Lawrence river there were owned 43 vessels, with a tonnage of 12,830 and a value of \$754,500.

Table 2 presents the totals of the preceding table under the various heads of side-wheel passenger, propellers carrying both passengers and freight, propellers carrying freight only, tugs, schooners, and lake barges, together with their respective number, tonnage, and value. These details are given for the same 98 ports that were quoted in the preceding table. One of the most interesting facts shown by this table is that nearly two-thirds the vessels on the Great Lakes are assigned to 7 of these ports, namely, Chicago, Port Huron, Detroit, Milwaukee, Grand Haven, Cleveland, and Buffalo.

Some idea of the size of these port fleets may be gathered from the following summary, which shows the number and tonnage of certain classes of vessels which are assigned to them:

TABLE 4.—SUMMARY SHOWING THE NUMBER AND TONNAGE OF CLASSIFIED VESSELS FOR THE SEVEN LEADING PORTS, TO WHICH HAVE BEEN ASSIGNED THE STATISTICS OF EQUIPMENT ON THE GREAT LAKES FOR 1889.

CITIES.		Γotal.	ing bo	llers carry- th passen- nd freight.		llers carry- eight only.	Scl	h oon ers.	В	arges.	All ot	her classes.
Ciriso.	Num- ber.	Tonnage.	Num- ber.	Tonnage.	Num- ber.	Tonnage.	Num- ber.	Tonnage.	Num- ber.	Tonnage.	Num- ber.	Tonnage.
Grand total	2, 737	920, 294	303	143, 907	433	388, 978	917	184, 029	301	138, 404	783	64, 976
Total of the 7 ports	1,814	638, 599	167	101, 193	349	310, 316	622	120, 302	129	58, 514	547	48, 274
Chicago	339	71, 260	34	13, 181	28	10,960	155	35, 859	18	6, 255	104	5,005
Port Huron	293	61, 482	11	1, 887	73	40, 840	100	6, 302	21	6, 797	88	5, 656
Detroit	275	129, 768	17	8, 565	56	56, 994	83	19, 074	44	21, 387	75	23, 748
Milwaukee	259	61, 694	12	3, 282	53	39, 172	129	13, 034	6	2. 246	59	3,960
Grand Haven	225	22, 308	31	5, 750	23	6, 305	74	4,784	1	618	96	4, 851
Cleveland	219	163, 227	19	33, 986	66	83, 979	64	30, 873	19	12, 302	51	2,087
Buffalo	204	128, 860	43	34, 542	50	72, 066	17	10, 376	20	8, 909	74	2, 967
Total other ports	923	281, 695	136	42, 714	84	78, 662	295	63, 727	172	79, 890	236	16, 702

A SERIES OF PERCENTAGES.

In Table 3 the 2,737 craft which constituted the total fleet of the Great Lakes and St. Lawrence river are subjected to a series of percentage calculations, one of which pertains to tonnage and the other to valuation, from which may be learned what proportion the tonnage or the value of any particular class of vessels bore to the total tonnage or total value of all vessels on the particular lake named, and what proportion the tonnage or the value of any particular class of vessels bore to the total tonnage of that class of vessels on all these waters. For example, it appears that the gross tonnage of steam propellers carrying freight only on Lake Superior was 13,517 tons, or 34.09 per cent of the gross tonnage on that lake. It also appears that the tonnage of steam propellers carrying freight only constituted but 3.47 per cent of the total tonnage of such vessels. Turning next to the subject of valuation, it is seen that the total value of steam propellers on Lake Superior carrying freight only was \$898,500, which was 32.51 per cent of the total value of all vessels on Lake Superior, or 3.83 per cent of the total value of this class of vessels on all the lakes. Similar percentages are given for each lake and for each of the 17 classes of vessels, side-wheel passenger, propellers carrying both passengers and freight, propellers carrying freight only, tugs, ferries, pleasure yachts, pile drivers, sand dredges, sand boats, fire boats, steam lighters, unclassified vessels, schooners, lake barges, scows, sloops, and yawls.

In Table 4 each of the 17 classes is considered separately, the details of number, gross and net tonnage, estimated carrying capacity, commercial value, and value per gross ton being entered to the credit of each class from each lake. That is, for example, it is shown that on all the lakes there were 62 side-wheel passenger steamers, of which number 23 were employed on lakes Huron, and St. Clair, 22 on Lake Michigan, 10 on Lake Erie, 4 on Lake Ontario, and 3 on the St. Lawrence river; that the gross tonnage of these 62 side-wheel passenger steamers found on all the lakes was 27,259; of which the Huron and St. Clair proportion was 17,729 tons, the Michigan proportion 5,879 tons, the Erie proportion 2,221 tons, the Ontario proportion 553 tons, and the St. Lawrence river proportion 877 tons. Similar entries for all the lakes are made for the other items and the other classes which have been mentioned. Material will be found also in this table for a calculation showing the average tonnage, average commercial value, and average commercial value per ton of all the 17 classes of craft mentioned; and in the accompanying summary these averages will be found worked out for the 5 principal classes of vessels:

TABLE B.—SUMMARY SHOWING THE AVERAGE TONNAGE AND AVERAGE COMMERCIAL VALUE PER CRAFT AND PER TON OF THE 5 PRINCIPAL CLASSES OF VESSELS OPERATING ON THE GREAT LAKES AND ST. LAWRENCE RIVER IN 1889.

CLASSES OF CRAFT.	Average tonuage.	Average commercial value.	Average commercial value per ton.
Propellers carrying both passengers and freight.	475	\$36, 208	\$76. 24
Propellers carrying freight only	898	54, 131	6 0. 2 6
Tugs	50	5, 228	104.55
Schooners	201	4, 599	22. 88
Lake barges	460	11,507	25. 02

STATISTICS OF CONSTRUCTION.

Tables 5 and 6 present the same statistics but in two methods. They correspond, in fact, in the plan of their presentation, with the two preceding tables. The first takes up each lake as a group and for each of the ports belonging to that lake enters up the number, tonnage, value, average value per ton, and average tonnage of each fleet, classed by material of construction. That is, the entries for the port of Duluth, which is on Lake Superior, are that the fleet of that port included 3 vessels of steel, 2 of iron, 33 of wood, and 1 of composite material; that the tonnage of Duluth's 3 steel vessels was 2,684, that their value was \$175,000, that their average value per ton was \$65, and that their average tonnage per craft was 895; that the tonnage of Duluth's 2 iron vessels was 98 tons, their value \$20,000, their average value per ton \$204, and their average tonnage 49, and so on all through the list. Without taking up the details of the ports, there is gathered from Table 5 that Marquette's fleet included 4 steel vessels, which were valued at \$900,000, and had an average tonnage of 2,476; that Detroit's fleet included 258 wooden vessels, whose average tonnage was but 408, but whose aggregate value was \$4,936,800; that Chicago's wooden fleet numbered 335 vessels, valued at \$2,723,350, while Milwaukee's wooden fleet numbered only 256, but was valued at \$3,123,000; that Buffalo's fleet included 14 steel vessels, which had the high average tonnage of 2,132 per vessel, and an aggregate value of \$2,950,000, and that Cleveland's wooden fleet was even more valuable than Milwaukee's, the 208 vessels of that material accredited to the principal port on Lake Erie being valued at \$7,035,800.

In Table 5 the facts connected with material of construction were assigned chiefly to localities, while in Table 6 the details are assigned chiefly to the material of construction. That is, in Table 5 the headings were the lakes, while in Table 6 the headings are the materials. One sees, for instance, that on all the lakes there were 40 vessels of steel, which had a tonnage of 75,488, a value of \$7,349,000, an average value per ton of \$97, and an average tonnage of 1,887; that the iron fleet numbered 45 vessels, with a tonnage of 35,922, a value of \$3,225,224, and an average value per ton of \$90, and an average tonnage of 798; that the composite numbered 11, having a tonnage of 14,756, a value of \$1,228,000, an average value per ton of \$83, and an average tonnage of 1,341 per vessel; and that the lake wooden fleet was 2,641 vessels, at an aggregate tonnage of 794,128, an aggregate value of \$36,777,950, an average value per ton of \$46, and an average tonnage per vessel of 301. The same figures of aggregates and averages are given for each port, and there is the material for many valuable calculations which those interested in lake statistics will doubtless find it useful to work out.

FREIGHT TRAFFIC.

The statistics of freight traffic will be found presented in 12 tables, numbered from 7 to 18, inclusive. In all of these, with the exception of the last 3, the amounts of freight moved are given respectively as those of "Receipts", "Shipments", and "Total movement". Trade between American and Canadian ports is included in these statements, but the coastwise trade between Canadian ports is of course excluded. The division of the commodities into the 4 groups entitled "Products of agriculture", "Products of mines and quarries", "Other products", and "Mannfactures, miscellaneous merchandise, and other commodities", set down in Table 7, has been made, because under these groups the principal articles of the lake commerce can be properly placed, and because this classification conforms in a general way to that adopted for all transportation statistics, thus providing for an easy comparison between lake traffic and the traffic of other sections of the country. It may be added here that the sources from which these statistics of traffic have been obtained are, first, reports from the customs offices of receipts and shipments; second, reports from leading shippers at ports having no customs offices; and third, reports from the important transportation lines operating on the Great Lakes and covering that portion of the traffic not included in port manifests. The reports of the boards of trade in the important cities have also been made use of to check and correct the information thus obtained, and it is believed that the figures presented are trustworthy and accurate.

LOCALIZATIONS OF TRADE.

In Table 7 the localization is made according to the lakes, and, in addition to the division of freight into the groups of locality and those of commodity, which have already been referred to, it contains a number of interesting percentages. These include not only the per cent of total traffic and the per cent of total commodity contributed by each lake to that traffic, but there also is a summary given in which the same percentages are applied to the excess of total shipments over total receipts, and excess of total receipts over total shipments.

A few words are necessary to explain these percentage columns. The first inserted alike under "Receipts". "Shipments", and "Total movement", shows what proportion the traffic of any commodity named bears to the total freight movement on the body of water for which the statistics are compiled. For example, the shipments of iron ore on Lake Superior were 4,141,057,tons, or 76.20 per cent of the total shipments of all commodities on that lake. These figures, therefore, indicate the relative importance of the various commodities in the commerce of the waters named. The percentage columns of the summary giving the total traffic show what proportion the traffic in any commodity named on a given lake bears to the total traffic in the same commodity on all the lakes.

For example again, Table 7 shows the total shipments of iron ore to have been 7,677,107 tons, while the shipments of that commodity from Lake Superior ports were, as has been seen, 4,141,057 tons, or 53.94 per cent of the total shipments of all iron ore on the Great Lakes and St. Lawrence river.

The most interesting point in connection with this summary of Table 7 is that part of it in which is given a balance sheet of receipts and shipments. From this it appears that the total receipts exceeded the total shipments by 669,158 tous, or 2.58 per cent of the aggregate freight traffic of all the lakes.

RECEIPTS AND SHIPMENTS.

It may be stated here that the only commodities of which the receipts and shipments nearly balanced are iron ore, flour, shingles, and pig iron. Table 7 does not separate the figures respecting these commodities except for iron ore, but in the commodity tables 10, 11, 12, and 13, such a separation has been effected for a number of commodities, and from the data there given many interesting balances may be struck.

For most of the other commodities the difference between receipts and shipments is quite marked. Coal, for example, shows an excess of shipments over receipts of 943,328 tons, or 15.45 per cent. This is in large measure explained by the fact that 562,834 tons of coal were exported from American ports on Lake Ontario to Canada, and that 25,931 tons are reported to have passed through the Welland canal. This leaves 354,563 tons to be accounted for. In the case of a commodity like coal, which is so universally used, it is fair to say that this excess was shipped to Canadian ports west of the Welland canal and to small ports within the United States, of which there is no record.

The shipments of wheat exceeded receipts by 1,666,267 bushels, or 49,988 tons. This is accounted for by the export of wheat to Canada, which passed through the Welland canal and St. Lawrence river to Montreal.

The shipments of corn exceeded the receipts by 12,346,893 bushels, or 345,713 tons. This shows an excess of shipments over receipts of 17.92 per cent. On investigation, however, it was found that 7,376,786 bushels of corn were exported to Canada via the Welland canal, and 3,758,427 bushels were shipped to Sarnia and Georgian bay for transshipment in bord through Canada to points in the United States.

The summary of Table 7 also shows that the shipments of "Other grains" exceeded receipts by 25,720 tons. This was principally due to the excess of shipments of oats over receipts, amounting to 7,890,593 bushels. Of this amount it was learned that 4,937,889 bushels were shipped to Sarnia and Georgian bay ports for transportation through Canada, and the remainder, it is believed, consisted of direct exports to Canada and of shipments to small ports on the Great Lakes, where no customs offices were located and no records of receipts were kept.

SAMPLE MOVEMENTS.

The discrepancy observed between the receipts and shipments of "All other farm products", 42,852 tons, was due to the fact that the commodities included under this head were shipped from small ports, of which they formed a considerable portion of the total traffic, and were given separately in the reports made, whereas they were received at large ports and were reported under the head of "Miscellaneous".

Lumber shows an excess of receipts over shipments of 676,244,000 feet, or 1,508,859 tons, making 22 per cent of total shipments. This was partly due to the heavy importation of Canadian lumber and partly to the fact that lumber was shipped in considerable quantities from a large number of isolated mills located at remote points on the more western lakes, where no record of shipments was kept or could be obtained.

No satisfactory explanation can be given of the fact that the receipts of salt exceeded shipments by 43,676 tons. It should be stated, however, that much confusion arose in the estimates of this commodity from the fact that it was shipped both in sacks and barrels, and that the custom house authorities of various ports failed to follow the same rule in converting it into tons.

The excess of receipts of stone over shipments, which amounts to 74,801 tons, is due to the fact referred to in the case of lumber, that is to say, the sources from which stone was obtained did not permit a correct statement of shipments.

RELATIVE IMPORTANCE OF TRADING POINTS.

Another form of localization is adopted in Table 8, entitled "Freight movement in general, by ports". Here the side lines are 31 selected ports, instead of the 4 comprehensive groups of commodities as they were in Table 7, while each commodity is made the title of a separate table. These 31 ports, it should be stated, have been selected because they had a total freight traffic of 250,000 tons or over. The percentages in Table 8 are equally interesting with those of Table 7.

The first column of percentages, given alike under "Receipts", "Shipments", and "Total movement", shows what proportion of traffic in the commodity in question was done by the port named. For example, the total shipments of wheat were 969,150 tons, of which Chicago shipped 312,203 tons, or 32.21 per cent of the total wheat traffic reported. The second column of percentages is designed to show what proportion of the total traffic of any port was due to the receipts and shipments of any commodity named. For example, the total shipments from Chicago amounted to 2,914,065 tons, 10.71 per cent of which, or 312,203 tons, was, as has been seen,

shipments of wheat. By referring, therefore, to the columns of percentages three important facts may be learned: first, the relative importance of any particular port in the traffic of any commodity named; second, the relative importance of any commodity in the traffic of any port named; third (by referring to the summary), the relative importance of any port in the total traffic of the Great Lakes and St. Lawrence river.

An example of the first calculation of percentages is found in that part of the table which refers to the movement of iron ore. Here it is seen that, so far as shipments went, Escanaba exported 3,364,067 tons of that product, or 43.82 per cent of the total iron ore exporting traffic on these waters; but as this port's traffic in iron ore was confined to its exportation, its percentage of the total iron ore movement on the lakes was reduced to 21.98 per cent. The same port may be retained as an example of the second class of percentages, in which it is seen that the 3,364,067 tons of iron ore which were shipped from Escanaba constituted 98.06 per cent of the entire traffic of the port. As to the third class of percentages, Escanaba being still kept as an example, the summary will show that its relative importance in the total shipment traffic was 13,58 per cent of the total shipment.

TRAFFIC IMPORTANCE.

A still further step in the localization of the freight movement is made in the résumé, Table 9, which gives the statistics of receipts, shipments, and total movement of freight at the 107 lake and river traffic points which are embraced in the list on pages 9 and 10, entitled "Ports of assignment for statistics of traffic", and from which returns have been received. No attempt has been made to work out the percentages of all these 107 ports, both because the calculations of percentage have been made with sufficient detail in the other ables and because these additional calculations would require a far greater labor than would be commensurate with the results.

Neither are these traffic points arranged according to the lakes on which they are situated, but m an unbroken list running according to their traffic importance. Chicago, it will be seen, easily heads the list, its freight receipts having been 5,069,973 tons, and its shipments 2,914,065 tons, a total of 7,984,038 tons. Buffalo, which is next on the list, had a total freight movement of 6,730,137 tons, made up of 4,046,144 tons of receipts and 2,683,993 tons of shipments. The total traffic of Escanaba, which comes third, was 3,626,390 tons, and it is curiously made up, for while its receipts were only 195,558 tons, its shipments amounted to no less than 3,430,832 tons, which made it the greatest shipping port on the lakes. The traffic of Cleveland, which occupies the fourth place, is made up on exactly reverse grounds to that of Escanaba, for in Cleveland's case out of a total of 3,621,570 tons the shipments were but 883,862 tons, while the receipts were 2,737,708 tons. In some of the ports it will be noticed there is but 1 entry. Tonawanda, for instance, which is thirteenth on the list, appears to have been a port of receipts only, as were also Dunkirk, Waukegan, Dexter, Pultneyville, Oak Orchard, Sandy Creek, Millens Bay, Thousand Islands Park, and Youngstown, while Two Harbors, Oscoda, Peshtigo Harbor, Baraga, Pequaming, Ontonagon, Marysville, Leland, and Glen Arbor were ports of shipment only. It would be but a reproduction of the table to quote extensively from its entries, and it need only be mentioned here that the traffic figures diminish almost ton by ton until the last entry is reached, that being Youngstown, with a total traffic for the year of 75 tons.

DETAILS OF COMMODITIES.

In Table 9 the ports, as has been stated, were arranged in the order of their importance as determined by the total amount of traffic, but in the 4 tables, 10, 11, 12 and 13, in which the work of particularization is still further carried out, these 107 ports are allotted to their respective lakes, while to each port, with totals for the lakes, there are given in detail the receipts, shipments, and total movement of all commodities. In the extended division of commodities, instead of the 13 headings which were given in Table 7 and Table 8, these commodity tables give no less than 26 headings, or just double that number. Apart from the usefulness of the extensive detailed work shown in Tables 10, 11, 12 and 13, the chief point of interest in the exhibit there made, as indeed in all the tables wherein commodities are shown, is the fact that the 3 articles of coal, iron ore, and lumber comprise 75.73 per cent of the total freight movement on the lakes. If to these commodities be added corn, 82.59 per cent of the total freight tonnage is accounted for, and if to the commodities above named there be added wheat and mill products, there would only remain 10.03 per cent of the total tonnage unaccounted for. It is, then, the simplicity of the lake commerce, so far as the leading commodities are concerned, which is its chief characteristic.

The best illustration of the fact is found in Table 13, entitled "Total freight movement, by extended list of commodities". Here it is shown that the total movement of coal on all the lakes amounted to 11,268,270 tons; that the total movement of iron ore amounted to 15,303,180 tons; that the lumber movement was that of 12,205,655 tons; that the corn movement amounted to 3,513,515 tons; that the wheat movement reached 1,888,312 tons, and that of mill products amounted to 1,886,189 tons. These items represent the movement of 46,065,121 tons out of a total movement of 51,203,106 tons, leaving but a balance of 5,137,985 tons, and when from this amount is taken the 1,623,115 tons of unclassified merchandise there will remain but 3,514,870 tons to be divided among the other commodities. Between the 1,886,189 tons of mill products and the next commodity in order of importance there is indeed a great disparity of movement. The closest item is the composite one of "Other grains", of which the movement was 980,514 tons, after which the record drops to the half-million-ton standard, the commodity of salt having been

transported to the extent of 549,350 tons and that of stone to 547,229 tons. The total movement of the other commodities ran as follows:

\cdot	TONS.
Other iron manufactures	320, 303
Iron, pig and bloom	316, 224
Cement, brick, and lime	
Other products of agriculture	132, 517
Animal products	
Sugar	103, 317
Other ore than iron	
Petroleum	52, 582
Other manufactures	28, 735
Fruit	26, 984
Products of mines and quarries other than coal, stone, and salt	23, 587
Ice	18, 912
Hay	18, 077
Liquors	14, 236
Potatoes	3, 698
Live stock	2,086

COMMODITY MOVEMENTS.

Looking at the movement of the 6 principal items, iron ore, lumber, coal, corn, wheat, and mill products, with more regard to the limitations of traffic, it is seen in Table 13 that the largest movement in iron ore was that of receipts by the ports on Lake Erie, the figures being 6,490,518 tons out of a total for all the lakes of 15,303,180 tons, and tracing down these ports on Lake Erie in Table 10, one finds that the three great ports at which receipts of iron ore were had were Ashtabula, at which was received 2,199,109 tons; Cleveland, at which the receipts were 1,951,564 tons, and Fairport, which received 928,616 tons. Table 13 also informs us that lakes Superior and Michigan were the lakes from which the great bulk of the iron ore was shipped, the figures being: Lake Superior, 4,141,057 tons, and Lake Michigan 3,446,947 tons, the addition of which 2 amounts gives 7,588,004 tons out of a total shipment movement of 7,677,107 tons. The detailed information of Table 11 explains this matter thoroughly and shows that on Lake Superior there were 3 ports from which all its shipments of iron ore were made, these being Ashland, 1,663,021 tons; Marquette, 1,541,495 tons, and Two Harbors, 936,541 tons; while on Lake Michigan there were but 2 ports from which iron ore was shipped, these being Escanaba, to which reference has already been made, with 3,364,067 tons, and Gladstone, 82,880 tons.

The total movement of coal on all the lakes, it will be remembered, was 11,268,270 tons, made up of 5,162,471 tons receipts and 6,105,799 tons shipments. The only 2 lakes, as Table 13 shows, of which the receipts were of any consequence were Lake Michigan, where the receipts were 2,865,021 tons, and Lake Superior, where the receipts were 1,754,675 tons; while nearly the entire amount of coal shipments were made on Lake Erie, the figures being 5,196,182 tons; the next and only lake of importance as a shipping lake being Lake Ontario, on which the coal shipments were 764,355 tons. Turning back to Table 10 it will be seen that the records of the individual port receipts of coal clearly indicate the importance and extent of the industries of the respective places. The largest receipts for coal, for example, on Lake Michigan were naturally at Chicago, the figures being 1,329,364 tons, and then Milwaukee, with 907,743 tons; while on Lake Superior the great receiving points for coal were Superior, 720,000 tons, and Duluth, 485,000 tons. When it comes to shipments, however, the story is quite a different one, the main port on Lake Erie being Buffalo, the shipping point of the Pennsylvania anthracite, the figures being 2,156,670 tons. Cleveland and Toledo are also large shipping points, the shipments from the first-named port being 825,030 tons, and from the second, 650,000 tons. On Lake Ontario the great coal-shipping point was Charlotte, from which 350,000 tons were sent. In a similar way the record of all the commodities could be worked out and no better history could be furnished of the whole traffic than would result from such a study, but enough space has already been taken up in indicating how this analysis of the tables may be made and of the lessons which would result from such an analysis.

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A DIVERSITY OF ITEMS.

It was stated on page 14 that "the simplicity of the lake commerce, so far as the leading commodities are concerned, is its chief characteristic", but it must not be inferred, however, that because of the preponderance of three or four commodities the commerce of the lakes is not a diversified one. The contrary is, indeed, the case, as may be seen by the following lengthy list of commodities which are included in the 5 divisions of "Products of agriculture", "Products of mines and quarries", "Other products", "Manufactures", and "Unclassified":

Products of agriculture:

Wheat includes all wheat.

Corn includes green corn.

Other grains include barley, buckwheat, oats, rye, and rice.

Mill products include bran, corn meal, flour, ground feed, mill stuffs, malt, middlings, catmeal, and oil cake.

Fruit includes all kinds of fruit.

Other farm products include cuions, straw, butter, cheese, eggs, peas, broom corn, vegetables, cider, seeds, cotton, and tobacco.

Products of mines and quarries:

Other ore includes copper ore and spelter.

Stone includes limestone, sandstone, paving stone, grindstone, building stone, marble, and sand.

Other mine products, not specified, include bullion, mica, plaster, and sulphur.

Other products:

Animal products include beef, cured meats, hides and skins, pork, leather, lard, tallow, wool, and poultry.

Live stock includes hogs, horses, cattle, and sheep.

Lumber, all kinds, includes car sills, Georgia pine, hoops, hoop poles, heading, matchwood, moldings, piles, posts, pickets, slabs, staves, bolts, ties, wood, lath, and shingles.

Manufactures:

Petroleum includes other oils.

Other iron manufactures include castings, bolts, railroad iron, nails, stoves, steel, spikes, machinery, bar and sheet metal, and rails.

Liquors include spirituous and malt liquors of all kinds and alcohol.

Other manufactures, not specified, include acid, ammonia, alum, bottles, bags, baskets, crockery, fertilizer, furniture, earthenware, lead, wagons, mantels, paints, pianos and organs, paper, trunks, pipes, jars, and twine binders.

Unclassified:

Merchandise and other commodities include ashes, empty barrels, bark, empty cases, household goods, fish poles, scrap iron, junk, empty kegs, mineral water, oakum, pulp, rags, sulphite, fiber, canned goods, coffee, candles, chestnuts, drugs, fish, groceries, glass, glucose, sirup, explosives, mill merchandise, rope, starch, soap, toys, tea, varnish, vinegar, sawdust, and sundries.

UNCLASSIFIED COMMODITIES.

The 25,936,132 tons of received freight and the 25,266,974 tons of shipped freight, which have been given in traffic tables 7 to 13, inclusive, do not really include all the freight for which returns even have been made, but only that amount which could be accurately reduced to the uniform unit of a 2,000-pound ton. A very large amount of freight was reported on which no such accurate reduction could be made, these returns being set down in Table 14. Among the much diversified commodities which are given in this table are household goods, window sashes, pianos, empty cases, thrashing machines, and home and farm utensils and machinery of many descriptions. The principal item, however, was that of merchandise waybilled as "packages", of which packages there were no fewer than 8,937,402.

These unclassified commodities represented so large a freight tonnage that an estimate of their freight in tons has been made. That attempt is set down in Table 15, wherein is shown the unit of measurement or description, the estimated weight in pounds per unit, and the estimated result in tons of all these much diversified goods, the result being an addition of 460,777.23 tons to the figures which stand as the totals of the general traffic tables.

CARGO TONNAGE.

While in all these tables the receipts, shipments, and total movement of freight have been quoted as representing the traffic on the Great Lakes and St. Lawrence river, it must be observed that it is a problem in accurate statistics whether the aggregate of receipts and shipments does not show a larger movement than the actual returns of cargo tonnage would do. In Table 16 the principle has been followed that the volume of traffic would be more clearly measured, not by this aggregate of receipts and shipments for all ports, but rather by taking in the case of each commodity either receipts or shipments, whichever happened to be the larger, and using this single amount to represent the cargo tonnage of that commodity. The totals of this table are drawn from Table 8.

PASSENGER RETURNS.

The last of the traffic tables, Table 17, furnishes the figures showing the passenger movement on these waters. From the returns there shown it appears that 775,871 persons traveled on regular passenger or regular passenger and freight boats; that 836,648 excursion passengers were reported on, and that there were 623,474 ferry

passengers, making a total of 2,235,993 passengers. A consideration of these totals is postponed until the subject of comparative statistics is taken up. It will be enough to say here that nearly one half of the excursion passengers is credited to Lake Erie, on which lake there seems to have been moved a total of 369,924 excursionists, and that Toledo was the great excursion point, no fewer than 257,046 being the number set down. The lake on which the greatest regular passenger business is reported to have been conducted is Lake Huron, which gives 315,120 out of a total of 775,871. The figures of passenger traffic are interesting so far as they go, but it must be confessed that the returns were not made with that scrupulous care which characterized the schedule reports of traffic and equipment.

FREIGHT VALUES.

Information regarding the value of the freight moved in any locality or on any particular water system has been so often asked for since commencing the preparation of these statistics that a calculation has been effected, in the case of the lake traffic, to secure an estimate of such valuation. This has been moderately practicable, as will be seen in Table 18, because of the record of estimated value kept at the offices of the St. Marys Falls canal, as will be hereafter shown in Table N inserted in the body of the present text. These estimates, which were prepared with much care by General O. M. Poe, United States Army Corps of Engineers, cover most of the principal commodities, and by applying them to the commodity tables of the lake traffic it has been found that the 27,394,767 tons constituting the total of the cargo tonnage shown in Table 16 had a value of \$359,482,437, while the addition of the 248,820 tons of unweighed freight, which has been estimated as the proper "cargo tonnage" of the 460,777 tons given in Table 15, will, at an estimate of \$60 per ton, raise the total value to \$374,411,637. The average estimated value per ton of all commodities, it will be seen, was \$13.12, while the range in the estimated values of commodities ran from \$3.05, for iron ore, to \$155.38 for "other products of mines and quarries". The next highest estimated value of any commodity is that of \$100 per ton, for "animal products". The valuation of some one or two other commodities, it will be observed, runs up into very high figures. The lead is taken by lumber, the 6,857,257 tons which were moved during 1889 being set down as worth \$70,629,747. Next come the mill products, valued at \$49,603,300, and then the wheat, \$31,662,131. The coal moved is valued at \$21,370,297 and the iron ore at \$23,415,176. The claim is not made that these estimates of values are unfailingly exact, but it is believed that they come comparatively close to the actual facts.

EARNINGS AND EXPENSES.

In Table 19 the figures are given which show how the business of transportation by water paid during 1889 for the 1,841 reporting craft. These figures are furnished under the headings of gross earnings, expenses, and net expenses, and all are given for the steam, the sailing, and the unrigged fleets allotted to their ports of registration, with totalized earnings for the lakes, and a summary in which a balance sheet is struck for all classes of craft; while in a supplementary table an estimate is made of the earnings and expenses of the 896 craft not reporting these matters. The summary's figures indicate that the gross earnings of the reporting fleet amounted to \$24,369,895, the expenses to \$19,443,241, leaving the net earnings at \$4,926,654. The largest figures out of this total are for Lake Erie, the gross earnings of its reporting fleet standing at \$9,649,090, with expenses of \$7,621,541, and net earnings of \$2,027,549. The next largest account is that of Lake Huron's fleet, which earned \$6,955,133, which paid out \$5,349,465 for expenses, and made as net earnings \$1,605,668. The third lake fleet in the order of its earnings and expense account was that of Lake Michigan, where the gross earnings were \$5,826,148, the expenses \$4,843,159, and the net earnings \$982,989. So far as ports are concerned, the largest gross earnings were those made by Cleveland's fleet, the figures being \$4,344,697 and the expenses \$3,441,929, leaving the net earnings at \$902,768. The next port in the order of its fleet operations so far as reported was Detroit, the amount being \$3,792,600, with \$2,812,931 for expenses and \$979,669 as net earnings. The third port of importance in this regard was Port Huron, its fleet returns giving \$3,162,533 of gross earnings, \$2,536,534 of expenses, and \$625,999 of net earnings. The gross earnings of Buffalo's fleet were \$2,785,853; those of Milwaukee were \$2,398,306; those of Chicago were \$2,111,312; those of Grand Haven were \$1,316,530, and those of Marquette were \$1,105,405; the earnings of each of the other places being below \$1,000,000.

Out of the totals of the combined fleets the earnings of all the reporting lake steamers amounted to \$17,808,329, the expenses to \$13,861,485, and the net earnings to \$3,946,844. Lake Erie maintains its importance in the returns of the steamers' accounts just as it did in the returns of the entire fleet, the steamers' gross earnings being \$7,461,563, their expenses \$5,732,426, and their net earnings \$1,729,137. Cleveland also retains its relative port importance, the gross earnings of its steamers being \$3,215,855, the expenses \$2,449,910, leaving the net earnings at \$765,945. These net earnings, however, were not so large as those of Detroit's steamers, the sum in that case being \$815,357 out of a total gross earnings of \$2,945,129. Next to Detroit came Buffalo, the gross earnings of its steamers being \$2,368,184 and their expenses \$1,834,458, leaving the net earnings at \$533,726.

The gross earnings of the entire reporting sailing fleet for all the lakes were \$6,480,424, the expenses \$5,513,536, and the net earnings \$966,888. The same lakes and ports that have been enumerated as controlling the most important financial figures in the reported operations of their entire sailing and steam fleets retained their leading position in the same details of the sailing vessels, and it will be scarcely necessary to quote any figures in evidence.

The earnings of the unrigged amounted to \$81,142, the expenses to \$68,220, and the net earnings to \$12,922. Only 3 ports, it will be observed, made any return for the unrigged, these being Marquette, Buffalo, and Ogdensburg. The unrigged account is in fact not altogether satisfactory, the two great difficulties in securing reports being that the most of the unrigged were mainly employed on the canals opening onto the lakes and their operations have been, whenever possible, covered in the report on canals; and, in the next place, the expense account of the unrigged was in many cases included in the accounts of the steamers supplying the motive power.

The supplementary table for the 896 craft not reporting earnings and expenses shows the estimate of gross earnings to be \$11,093,957, that of expenses \$8,448,811, leaving the net earnings at \$2,645,146, and these figures added to those of the craft actually reporting would raise the probable gross earnings of the whole operating fleet of the Great Lakes to \$35,463,852, the expenses to \$27,892,052 and the net earnings to \$7,571,800.

EXPENSE DETAILS.

In Table 20 the total amount of reported expenses, \$19,443,241, is reduced to the principal items making it up. These items are port charges, wages, provisions, current repairs, fuel (for the steamers), commissions, insurance, taxes, and office expenses, together with the two entries giving what other running and shore expenses may not have been included in the list of items just quoted. These items of expenses are distributed among the steam, sail, and unrigged craft of each port of registration, with totals for the lakes and a summarized presentation of the same items of expenses for all the fleets. Many interesting lessons are to be learned from a consideration of these analyses of expenses. By far the largest item was that of wages, the figures being \$5,676,802, of which amount \$4,235,980 were paid on board the steamers and \$1,422,957 on board the sailing vessels. Out of the total wages Cleveland paid \$652,146 to steamer hands and \$223,576 to the crews of sailing vessels, while Detroit shipowners paid out \$626,589 to the officers and crews of steamers and \$139,746 for wages on board sailing vessels. The wage account of the Buffalo steamers footed up to \$533,468, that of its sailing vessels reaching only \$70,424, while the steamer wages at Port Huron amounted to \$479,292 and the sailing vessel wages to \$230,201.

The next largest item of expense was that of fuel, the cost of which amounted to \$2,975,915. Current repairs cost \$1,681,694, \$1,158,494 being expended on steamers and \$522,557 on sailing vessels. Provisions cost \$1,322,925, the steamers' portion of that expense being \$990,678 and the sailing vessels' part being \$328,207; port charges for the fleets for all the lakes amounted to \$895,140, close to which stands the item of insurance, \$885,303. The commissions amounted to \$158,863, taxes to \$138,773, and the office expenses to \$235,085. There is material in Table 20 for many calculations which would be of especial interest to shippers, such, for example, as the relation of certain items of expense to certain classes of vessels in different localities, together with others which will suggest themselves to the practical reader.

The supplementary table for the 896 craft not reporting details of expenses gives a very interesting analysis in estimate of the \$8,448,811 which form the total estimated expenses of the nonreporting contingent of the lake fleet, and by adding these estimates to the figures actually given the probable totals in the items of port charges, wages, provisions, current repairs, fuel, commissions, insurance, taxes, and other running and shore expenses will be obtained.

EMPLOYÉS AND WAGES.

In much the same way that the grand total of expenses given in Table 19 was divided into a number of items in Table 20, so the grand total of wages which formed one of the leading items in Table 20 is analyzed in Tables 21 and 22, which treat of the monthly wages of all classes of employés. Of these employés the steamer list embraces captains, first and second mates, clerks, first and second engineers, wheelmen, lookouts, watchmen, cooks and assistant cooks, seamen, deck hands, firemen, stewards, waiters, boys, chambermaids, porters, and musicians; the sailing vessel list embraces captains, first and second mates, cooks, seamen, boys, and watchmen; and the unrigged craft list includes captains, mates, cooks, and seamen. The number of each class of employés for all fleets is given by ports, lakes, and in a comprehensive total. From this latter it is seen that on all the lakes the list of employés, their number, aggregate monthly payments, and the average monthly wages for the 1,841 reporting craft were as given in Table C, on the following page.

TABLE C.—STATEMENT SHOWING THE NUMBER OF ALL EMPLOYES CONSTITUTING THE ORDINARY CREWS OF 1,841 REPORTING VESSELS ON THE GREAT LAKES AND ST. LAWRENCE RIVER, TOGETHER WITH THEIR AGGREGATE AND AVERAGE MONTHLY WAGES.

EMPLOYÉS.	Number employed.	Aggregate of wages for one month.	Average monthly wages.	
Total	15, 761	\$769, 047	\$4 8. 79	
Captains	1,837	175, 799	95. 70	
First mates	1, 214	74, 471	61.34	
Second mates	471	26, 304	55. 85	
Clerks	117	7, 751	66. 25	
First engineers	1,067	93, 193	87. 34	
Second engineers	597	37, 159	62. 24	
Wheelmen	1,040	37, 452	36. 01	
Lookouts	565	19,078	33. 77	
Watchmen	505	16, 633	32.94	
Cooks	1, 387	60, 794	43, 83	
Assistant cooks	306	6, 419	20.98	
Seamen	2, 444	93, 255	38. 16	
Deck hands	2. 278	53, 992	23, 70	
Firemen	1, 463	53, 411	36. 51	
Stewards	73	4, 457	59. 4 3	
Waiters	215	4, 395	20. 44	
Boys	34	622	18. 29	
Chambermaids	49	1.097	22. 39	
Porters	89	2. 245	25. 22	
Musicians	8	520	65.00	

In explanation of the apparently high wages paid in the business of the lake traffic, which the preceding and succeeding tables show, attention should be called to the fact that the season of employment on the Great Lakes never includes the winter months, and, that, therefore, any computation of annual wages can only be based upon the 7 or 8, or, at the most, 9 months of open water. From summary Table C it is also seen that the number of persons making up the ordinary crews of the 1,841 reporting vessels was 15,761, of which number (see Table 22) 832 belonged to Lake Superior, 4,278 to Lake Huron, 4,503 to Lake Michigan, 5,430 to Lake Erie, 476 to Lake Ontario, and 242 to St. Lawrence river. The number of persons who received employment on these vessels during the year, however, was much larger, the total being 28,295, of which total 1,469 belonged to Lake Superior, 6,853 to Lake Huron, 8,474 to Lake Michigan, 10,298 to Lake Erie, 615 to Lake Ontario, and 586 to St. Lawrence river. The total monthly account of the wages paid to the officers and crews given in the foregoing statement stands at \$769,047, of which amount \$43,514 were paid to officers and crews on Lake Superior, \$195,894 to those on Lake Huron, \$233,630 to those on Lake Michigan, \$264,083 to those on Lake Eric, \$21,849 to those on Lake Ontario, and \$10,077 to those on the St. Lawrence river. The average rate of wages has also been worked out in all of these tables, and when they are calculated from the lake totals it is remarkable how little variation appears. The highest average rate of wages per month for the whole body of reported employés making up ordinary crew is \$52.30 for Lake Superior, while the lowest is \$41.64 on St. Lawrence river, between which come \$51.88 for Lake Michigan's average, \$48.63 as that of Lake Erie, \$45.90 as that of Lake Ontario's employés, and \$45.79 as that of the Lake Huron contingent, the average for the whole system of lakes being \$48.79, which is, as it will be observed, very close to that of Lake Erie's average.

So far as the list of the steamer crews is concerned, with their numbers, class, and aggregate monthly wage the figures are as follows:

TABLE D.—STATEMENT SHOWING THE NUMBER OF ALL EMPLOYES CONSTITUTING THE ORDINARY CREWS OF 1,00 REPORTING STEAMERS ON THE GREAT LAKES AND ST. LAWRENCE RIVER, TOGETHER WITH THEIR AGGREGAT AND AVERAGE MONTHLY WAGES.

EMPLOYÉS.	Number employed.	Aggregate of wages for one month.	Average monthly wages.	
Total	11, 159	\$554, 907	\$4 9. 73	
Captains	1, 069	116, 678	109. 15	
First mates	577	41, 289	71. 56	
Second mates	339	19, 663	58.00	
Clerks	117	7, 751	66. 25	
First engineers	1, 067	93, 193	87. 34	
Second engineers	597	37, 159	62. 24	
Wheelmen	1, 040	37, 452	36. 01	
Lookouts	565	19, 078	33. 77	
Watchmen	503	16, 583	32. 97	
Cooks	720	37, 106	51. 54	
Assistant cooks	306	6, 419	20. 98	
Seamen	52	1,870	35. 96	
Deck hands	2, 278	53, 992	23, 70	
Firemen	1, 463	53, 411	36, 51	
Stewards	75	4, 457	59. 43	
Waiters	215	4, 395	20. 44	
Boys	30	549	18. 30	
Chambermaids	49	1,097	22 . 39	
Porters	89	2, 245	25. 22	
Musicians	8.	520	65. 00	

Allotted to the lake and river steamer fleets, the monthly wage list for these steamers (with the average rate o wages per month) stands as follows:

LAKES AND RIVER.	Total wages paid per month.	Average rate of wages per month.
Total	\$554,907	\$49.73
Lake Superior	36, 479	52. 79
Lake Huron	144, 608	48.01
Lake Michigan	148, 397	52, 75
Lake Erie		48. 72
Lake Ontario	12.402	46. 80
St. Lawrence river	8, 489	47. 16

The crews of the sailing vessels, with their monthly wage account, are shown in the following list:

TABLE **E.**—STATEMENT SHOWING THE NUMBER OF ALL EMPLOYES CONSTITUTING THE ORDINARY CREWS OF 758 REPORTING SAILING VESSELS ON THE GREAT LAKES AND ST. LAWRENCE RIVER, TOGETHER WITH THEIR AGGREGATE AND AVERAGE MONTHLY WAGES.

KMPLOYÉS.	Number employed.	Aggregate of wages for one month.	Average monthly wages.	
Total	4, 541	\$212,058	\$46. 70	
Captains	757	58, 426	77. 18	
First mates	632	32, 952	52. 14	
Second mates	132	6, 641	50. 31	
Cooks	660	23, 547	35. 68	
Seamen	2, 354	90, 369	38, 39	
Boys	4	73	18. 25	
Watchmen	2	59	25.00	

Allotted to the lake and river sailing vessel fleets, the monthly wage list (with the average rate of wages per month) would be as follows:

LAKES AND RIVER.	Total wages paid per month.	Average rate of wages per month.	
Total	\$212,058	\$46. 70	
Lake Superior	6, 669	49.77	
Lake Huron	51, 286	40. 51	
Lake Michigan	85, 233	50.43	
Lake Erie		48. 34	
Lake Ontario	9, 447	44.77	
St. Lawrence river	547	24. 86	

The items of the wage account of the crews belonging to reporting unrigged craft may be summarized as follows:

employés.	Number employed.	Aggregate of wages for one month.	Average monthly wages.	
Total	61	\$2,082	\$34.13	
Captains	11	695	63. 18	
Mates	5	230	46.00	
Cooks	7	141	20, 14	
Seamen	38	1,016	26.74	

The supplementary statement for the 896 craft not reporting crews and wages shows the estimated number of men on these vessels to be 6,965, to whom, on the basis of the rates reported on, there were paid \$317,138 as the aggregate of wages for 1 month. Accepting the sum of these 2 tables as the probable account of crews and wages for all the operating lake fleets, it would seem that the total number employed was 22,726, their aggregate wages for 1 month being \$1,086,185.

FUEL ACCOUNT.

An itemization has been made of the fuel account in Table 23, wherein are set down the accounts of coal and wood burned by the 1,072 reporting steamers during the operating year of 1889, together with the cost of the fuel. As was seen when considering Table 20, the cost of the fuel figured as an item of the expense account to the extent of \$2,975,915. The material costing this consisted of 1,118,677 tons of coal and 62,319 cords of wood. The greatest reported consumption of coal was on Lake Erie, where 497,268 tons were burned, costing \$1,333,833; on Lake Huron 324,209 tons were burned, costing \$745,130, and on Lake Michigan 205,591 tons of coal were burned. Wood was only reported as having been burned to any extent on Lake Michigan, where 60,843 cords were used; the other two localities reporting the consumption of wood for fuel being Lake Superior, with 1,100 cords, and St. Lawrence river, with 376 cords.

The supplementary report for the 395 steamers not reporting fuel gives an estimate of 412,320 tons of coal and 22,969 cords of wood burned, valued at \$1.096,536; which figures added to those actually reported give a total fuel account of 1,530,997 tons of coal and 85,288 cords of wood, the whole valued at \$4,072,451.

COMPARATIVE STATISTICS.

In considering the comparative statistics embraced in Tables 24 to 32, inclusive, it must be remembered that the figures are drawn from two different sources, according to the condition of the data. Thus the first 4 tables are made up from the information which was presented in the transportation volume of the Tenth Census compared with such totals drawn from the report of the present census as could be presented in exact juxtaposition. The only branch of transportation on the Great Lakes which the report of the Tenth Census touched upon was that conducted by steamers, so that the tabulation of comparative statistics based on the census figures was necessarily restricted to the operations of this class of craft, and to such entries of equipment, operations, and expenses as formed the subject of the inquiry by both the Tenth and Eleventh Censuses.

In this connection the following extract from the report on transportation by the Tenth Census may be **Pertinently quoted:**

THE LAKES IN 1880.

On the northern lakes, embracing the steamboat interests of states and parts of states tributary to these waters, but excluding Lake Champlain, there were at the close of the census year 947 steamers of all classes, measuring 222,290.45 tons, valued at \$13,918,925, with \$16,978,108 of capital invested. They gave employment to 9,143 men, and there were paid for services \$3,293,964, making an average of \$360.27 per man, exclusive of shore help. The passenger movement, amounting to 1,356,010 persons carried, may be divided

into 926,250 regular and excursion passengers and 429,760 ferry passengers, not including the transfers of the Canada Southern Bridge Company at Stony Island, near Detroit, with one of their boats an American bottom. The freight movement reached 4,368,171 tons, exclusive of lumber carried, which approximated 318,889,000 feet. The lumber that was towed during some stage in its journey from the forest and mill to the manufactory would include a large share of the 4,497,211,000 feet cut on the upper and lower peninsula of Michigan, as well as a large portion of the lumber production of Wisconsin. * * * Employed in this line of traffic there were some 70 steamers, measuring 23,300.84 tons, and valued at \$1,302,500, engaged in carrying this production. In the grain trade the number of steamers approximated 67, measuring 80,669.12 tons, and valued at \$4,777,700, and in the ore trade there were some 38 steamers, measuring 36,145.93 tons and valued at \$1,750,500. * * *

The fuel consumed by the steamers on the northern lakes was reported at 488,610 tons of coal and 255,629 cords of wood, the latter consisting largely of slabs and poor grades of wood and refuse used in the towing steamers in the lumber regions of Michigan and Wisconsin. The coal consumed was largely of the bituminous variety, mined in southern and central Ohio.

Of the 947 steamers owned on the northern lakes, 141 were passenger steamers, measuring 56,471.26 tons and averaging 400.50 tons each; 28 ferry steamers, measuring 3,624.26 tons and averaging 129.43 tons each; 202 freight steamers, measuring 139,154.16 tons and averaging 688.88 tons; 426 towing steamers, of 20,274.95 tons, with an average of 47.59 tons; and 150 yachts, measuring 2,765.82 tons and averaging 18.44 tons. In 1851 the average tonnage of steamers on the northern lakes was given at 437 tons. The increase in the number of tugs and yachts since that date has reduced their average to 235 tons at the present time. The maximum tonnage in 1880 was 2,082 tons, while the maximum of actual carrying capacity was about 2,400 tons.

LESSONS OF COMPARISON.

So far as Table 24 goes, it might form the basis of much interesting speculation, but all that it is necessary to indicate at present is the fact that in 1880 the lake fleet of steamers numbered 947, with a tonnage of 222,290 tons and an estimated commercial value of \$13,918,925, and that in 1889 the lake fleet of steamers numbered 1,467, had a tonnage of 595,013 tons, and was valued at \$40,868,824. The classification of the fleets for both years has been made by passenger and freight carrying boats, ferryboats, towing and harbor boats, and miscellaneous craft. In all of these classes, with the exception of the miscellaneous, it will be observed there has been a steady and well-defined increase, and the only reason that this is not marked in the miscellaneous class is because in the entry of 1880 there were included a number of steam canal boats that were omitted from that of 1890. It has been said that the increase in the 2 years of report is a steady and well-defined one, but it will be observed that there is an apparent lack of ratio between the number of the passenger and freight boats on the one hand and the increase of their tonnage and value on the other, for while the increase in the number of the steamers is at the rate of 132.65 per cent, the increase in the tonnage stands at 186.34 per cent, and that of value at 228.87 per cent. The explanation of the apparently undue increase in tonnage and value lies in the fact that the passenger and freight steamers which are being turned out from the lake shipyards are yearly becoming larger and more expensive, a subject concerning which much more is said under the head of "Comparative record of shipbuilding".

EARNINGS AND WAGES.

Only the gross earnings are given in Table 25, because in the investigation of 1880 only these were asked for, and it was not possible to make up a balance sheet owing to the absence of any figures of expenses, and only the total for all the lakes is published because of the fact that in 1880 the returns were made by states, while in 1889 they were made by lakes. This unfortunately does away with the possibility of a comparison by localities, and all that can be shown or said is that in 1880 the gross earnings on all the reporting craft of the Great Lakes amounted to \$12,136,228, while in 1889 the sum had risen to \$17,808,329, a gross increase of \$5,672,101 and an average annual increase of more than \$630,000. The amount paid out in wages on reporting vessels in the 2 years is given in Table 25, because it is the only item of expense that can be compared, but a better consideration of it may be had from a study of Table 26. The entry entitled "Total number of men making up the ordinary crews" must be accepted as indicating the total number of men required to work all the reporting craft, and not the total number of men employed during the year. The number of men making up the complement of the crews on reporting vessels in 1880 was 9,143, while in 1889 the number reported was 11,159. To these there was paid out as wages during 1880 \$3,293,964, while in 1889 the total wages paid amounted to \$4,235,980. The average annual wages per man for the first-mentioned year was \$360.27, and \$379.60 for 1889, an average increase of wages per man of \$19.33.

FREIGHT AND PASSENGER TRAFFIC.

The explanation of the abnormal increase of freight movement for 1889 over that of 1880, as given in Table 27, is a twofold one. In the first place the increase of steamers as freight carrying vessels has been unusually large, the fleet of 1889 (as it will be remembered was shown in Table 24) being more than 100 per cent greater than it was in 1880, while the tonnage had just about trebled. This means that the increase of steamer carried freight would be the largest of any portion of the lake traffic, and if the tonnage of the fleet has increased threefold there is no good reason why the freight movement might not have been increased in the same ratio. The figures of freight movement as given in Table 27, however (4,368,171 tons in 1880 and 20,143,483 tons in 1889), show a more than quadruple increase, and the other part of the explanation is that the means employed to secure a full report in 1889 were further reaching than those which could be availed of in 1880. The increase in passenger movement, it

will be observed, while it does not show any such extraordinary accretion, is still a large one, the total movement for 1880 standing at 1,356,010 passengers against 2,235,993 in 1889. These totals were made up of 926,250 regular and excursion passengers and 429,760 ferry passengers carried in 1880 and 1,612,519 regular and excursion and 623,474 ferry passengers carried in 1889.

FLEETS IN 1880 AND 1889.

The comparative statistics found in Table 28 and the 5 following tables have been gathered from the reports of the bureau of navigation. It will be noticed that although the total of the fleet for 1889 is the same in both the reports of the Commissioner of Navigation and the Census, the component parts do not correspond. The two reports stand as follows:

equipment,	Census report.	Report of Commis- sioner of Navigation.
Total	2, 737	2, 737
Steamers	1, 467	1, 436
Sailing vessels	962	1, 251
Unrigged	308	50

The only difference between these two lists is that of the distribution of the unrigged. If the Commissioner's 50 barges are subtracted from the census 308 unrigged, 258 unrigged will remain to be distributed among the steamers and sailing vessels. Next it will be seen that the census report gives 1,467 steamers, while the Commissioner's is 1,436, which means that the census has grouped 31 more craft under the head of steamers than the Commissioner has done. Adding the extra number of unrigged, 258, to the 31 surplus steamers, a total of 289 is reached, which is exactly the number of sailing vessels required to raise the census 962 to the Commissioner's 1,251. The yearly details afforded in Tables 28, 29, and 30 form an interesting record, but the pith of the subject is found in the recapitulation of the 10 years, wherein the addition of the individual records of the various districts is inserted, the total representing the lake fleet for each of the years in question. No clearer presentation of the gradual change in the class of craft in use on the lakes can be made than is found in this recapitulation, for while the number and tonnage of the entire fleet has risen from 2,487 craft with an aggregate tonnage of 552,342 tons in 1880 to 2,737 craft with an aggregate tonnage of 900,847 tons in 1889, it will be seen that the increase has been made only in the steamer fleet, and that there has been a steady diminution in both the sailing vessels and barges registered in the various ports. The sailing vessels, which numbered 1,415 in 1880, had dropped to 1,332 in 1883 and to 1,251 in 1889. While, however, the number had thus dwindled, the tonnage, it will be seen, displayed an increase, for, although it was 302,265 tons in 1880, it had risen to 322,694 tons in 1889, notwithstanding the fact that the number had decreased. The explanation, of course, lies in the circumstance already alluded to, the increased average tonnage of the vessels built in late years. In the case of the barges, however, the diminution has been a steady one in both number and tonnage. In 1880 the number of registered barges was 160, with a tonnage of 40,612 tons; by 1884 it had dropped to 120, with a tonnage of 33,326 tons, while by 1889 the number had decreased to 50 and the tonnage to 6,948 tons.

SHIPBUILDING RECORDS.

Tables 31 and 32 form a record of shipbuilding for the same 10 years, 1880-1889, that have been used in the 3 preceding tables. Table 31 gives the figures from the yards of each customs district and for the construction of steamers, sailing vessels, and barges; while Table 32 deals only with the steamers built during each of the 10 years, and then considers them under the various methods of propulsion, that is, whether propeller, side-wheel, or stern-wheel. Each table is supplemented by a recapitulation, in which only the totals for the whole lake system are inserted.

A study of Table 31 shows that if arranged in the order of their importance as shipbuilding centers, the different customs districts would stand as is shown in the following table:

TABLE F.—STATEMENT SHOWING THE TOTAL NUMBER OF REGISTERED VESSELS OF ALL CLASSES BUILT IN THE CUSTOMS DISTRICTS OF THE GREAT LAKES AND RIVER ST. LAWRENCE DURING THE YEARS 1880-1889, THE DISTRICTS BEING ARRANGED IN THE ORDER OF THEIR IMPORTANCE.

CUSTOMS DISTRICTS.	Total.	1880	1881	1882	1883	1884	1885	1886	1887	1888	1889
Total	1, 375	117	175	199	134	110	95	66	117	183	179
Huron	245	21	30	36	24	19	14	9	22	31	39
Michigan	206	23	23	35	20	18	11	13	18	17	28
Milwaukee	182	16	23	. 28	21	8	15	6	7	30	28
Buffalo creek	180	9	31	23	22	20	8	10	14	23	20
Detroit	156	3 21	24	23	11	15	9	3	11	19	20
Cuyahoga	123	9	14	18	8 (7	4	5	12	23	22
Chicago	64	· 1	6	15	12	5	8	3	9	3	:
Cape Vincent	41	5	4	3	3	2	10	2	2	6	4
Sandusky	29	3	3	5	1	. 2	3 !	5	. 	5	:
Superior	28	ľ	5	4	3	3	1	2	2	5	8
)awego	25	3	6	1	3	. 1		1	4	5	1 1
Niagara	23	2	'. .	3		1	1		8	7	1
Oswegatchie	20	1	1	1	1	4	5	3		3	1
Liami	19	2	3		4	2	1			2	
Erie	14			4	:		3	1	1	3	2
Genesee	11	1	2			1		2	5		
Duluth	7			. ;	1	2	2 ,	1		1	
Dunkirk	2	, ,			!		. '		2		

From the preceding summary it is seen that the districts of Huron, Michigan, Milwaukee, Buffalo, Detroit, and Cuyahoga (Cleveland) easily lead. It will be seen, too, that with Detroit as the exception of locality and with the years 1882, 1884, 1885, and 1886 as the exceptions of time, the increase in the shipbuilding records of these leading districts has been a steady one. Contrasting the figures of 1880 and 1889, Huron, for instance, is seen to have gained 18 in her output of vessels, Michigan to have gained 5, Milwaukee 12, Buffalo 11, and Cuyahoga 14. Chicago's shipbuilding record is surprisingly small, and it is only during the past year or two that this city has seriously taken up the industry of construction. The largest record of any one district for any one year in point of number was for Huron, in 1889, when she added 29 steamers of 20,980 tons burden, 9 sailing vessels of 4,306 tons burden, and 1 barge with 174 tons burden to the lake fleet, the total addition being 39 craft, with a tonnage of 25,459 tons. The largest record of any one district for any one year, in point of tonnage, was that of Cuyahoga, in 1889, when she built 23 vessels, with an aggregate tonnage of 31,205 tons, making an average tonnage of 1,357 tons.

To Cuyahoga's shippards for 1888 must also be credited the second best year's output, the aggregate tonnage of 23 vessels launched in that year rising to 29,786 tons. Next in the order of the year's shipbuilding comes Huron, in 1889, when from the yards of that district there were launched 39 vessels, with a tonnage of 25,459 tons, and next Detroit, for 1889, when 20 vessels were built, with an aggregate tonnage of 22,426 tons. Taking the three years of 1887, 1888, and 1889, it will be seen that during this term shipbuilding on the Great Lakes reached its highest point, the record, as is shown by the subjoined table, being 200 vessels launched, with an aggregate tonnage of 192,281 tons.

TABLE G.—STATEMENT SHOWING THE OUTPUT OF THE THREE LEADING SHIPBUILDING DISTRICTS ON THE GREAT LAKES FOR 3 SELECTED YEARS, TOGETHER WITH THE AVERAGE TONNAGE OF THE VESSELS AND FLEETS.

CUSTOMS DISTRICTS.	Year.	Tonnage.	Number of vessels.	Average tonnage.
Total for 3 districts		192, 281	200	961
Cuyahoga	1887	16, 351	12	1, 363
•	1888	29, 786	23	1, 295
•	1889	31, 205	23	1, 357
Total for Cuyahoga		77, 342	58	1, 333
Detroit	1887	10, 554	11	959
	1888	20, 535	19	1,081
	1889	22, 426	20	1, 121
Total for Detroit	'	53, 515	50	1, 070
Huron	1887	13, 690	22	622
	1888	22, 275	31	719
	1889	25, 459	39	653
Total for Huron		61, 424	92	668

A column of average tonnage has been inserted in the preceding table, and from the figures there given a very instructive lesson is to be learned. They show, for instance, that the vessels built at Cuyahoga had the highest average tonnage of any vessels built, irrespective of class. That average ran 1,363, 1,295, and 1,357 tons for 1887, 1888, and 1889, respectively, or an average vessel tonnage of 1,333 tons per vessel for the 3 years. This high average vessel tonnage is indeed a characteristic of shipbuilding on the lakes, but is especially characteristic of the new steamer fleets, as will be seen when Table 32 is reviewed.

The account of barge building, as shown in the recapitulation of Table 31, can hardly be regarded as of very much importance, because, as has been elsewhere said, the barges taken account of by the Commissioner of Navigation are only those that are registered, registration being optional with the owner. Still the table, so far as its value for comparative statistics goes, would not be complete without this entry. It is valuable, too, as showing that both in number and tounage the building of barges, that is, of registered barges, is yearly diminishing; for while in 1881 the account shows the building of 14 barges with an aggregate tonnage of 3,111 tons, in 1889 only 2 were built, with an aggregate tonnage of 247 tons, and in 1884 there was but 1 small barge built.

The fluctuations of the building of sailing vessels is quite clearly shown in the recapitulation of Table 31, and while there was a gradual rise in the statistics of their construction from 47 in 1880 to 66 in 1882, there was a still more strongly marked declension from 1882 to 1886, in which latter year but 15 sailing vessels were built. The last 3 years in the table did not bring the number back to the large figures of 1882, although these years were marked by an unusual activity in the lake yards, the numbers running 34, 42, and 32. It will be noticed, however, that the aggregate tonnage suffered no such decline.

One has to look to the records of steamer building as shown in this recapitulation table (and in a still more condensed form in the accompanying summary) for the explanation of the increased importance of this branch of the shipbuilding industry.

TABLE H.—SUMMARY SHOWING THE NUMBER AND GROSS TONNAGE OF STEAMERS BUILT ON THE GREAT LAKES AND RIVER ST. LAWRENCE FROM 1880 TO 1889, INCLUSIVE.

YKARS.	Number.	Gross tonnage.		
1880	63	14, 106, 46		
1881	109	49, 080. 21		
1882	128	33, 596. 45		
1883	100	17, 253. 42		
1884	80	20, 205. 69		
1885	64	20, 228. 52		
1886	46	12, 610, 73		
1887	75	47, 183. 46		
1888	139	86, 715. 98		
1889	145	93, 706. 73		

The peculiarity of the steamer-building record, it will be seen, is that, notwithstanding the lack of any uniform increase in number, the tonnage shows a steady rise. Thus, while in 1881 the steamers built numbered 109, their tonnage being 49,080 tons, in 1888 the number of steamers built was 139, but the aggregate tonnage had risen to 86,716 tons; and while in 1882 the number of steamers was 128 as against 145 for 1889, the tonnage of the steamers

built in the first year was 33,596 tons as against 93,707 tons for the latter year. Reduced to the common denomination of average tonnage, these figures of comparison mean that in 1882 the average tonnage of the steamers built was 262.47 tons and that in 1889 the average tonnage of the steamers built was 646.25 tons. When, too, the calculation is made one of percentage, it is found that while the percentage of number showed an increase for 1889 over 1882 of 13.28 per cent, the percentage of tonnage showed an increase for 1889 over 1882 of 178.92 per cent.

METHODS OF PROPULSION.

Further evidence of a continued alteration in the condition of affairs is found in Table 32, wherein a division is made of all the steamers built during the 10 years 1880–1889 into the 3 classes of propulsory power, propeller, side-wheel, and stern-wheel. It will hardly be necessary to make any analysis of the yearly tables wherein the individual entries of the different districts are set down, although the story told there is an interesting one in many particulars, while by turning to the recapitulation the relative favor and use of the different classes may be seen at a glance. During the 10 years but 15 stern wheelers, having a tonnage of 2,696 tons, were built, while in the same period 889 propellers were built, with an aggregate tonnage of 367,275 tons. The side wheelers maintained their position with some firmness, although the difference between the 18 vessels which were built in 1882 and the 6 which were built in 1889 can not fail to be marked.

The popularity of the propeller is unquestioned and unmistakable, and even when a comparison is made between the 2 years of 1881 and 1882 with 1888 and 1889, these being the 4 years of the greatest activity, the increase for the 2 latter years, especially in tonnage, is certainly remarkable. The output of the different localities, so far as the number of steamers built goes, is set down in the following summary:

TABLE J.—STATEMENT SHOWING THE NUMBER OF PROPELLERS, SIDE-WHEEL, AND STERN-WHEEL STEAMERS BUILT IN THE CUSTOMS DISTRICTS OF THE GREAT LAKES AND RIVER ST. LAWRENCE DURING THE YEARS 1880-1889, INCLUSIVE.

CUSTOMS DISTRICTS.	Propellers.	Side wheel.	Stern wheel.		
Total	889	45	15		
Oswegatchie	14				
Cape Vincent	19	2	. .		
Oswego	18				
Genesee	8	2			
Buffalo creek	160	3			
Cuyahoga	89	13	3		
Sandusky	15	3	2		
Miami	12	1	1		
Detroit	103	7			
Huron	126	1			
Michigan	133	1	7		
Chicago	45	1			
Milwaukee	100	9	2		
Superior	13 .				
Niagara	17 .				
Erie	13	1			
Duluth	2	1	· · · · · · · · · · · · ·		
Dunkirk	2		.		

MAGAZINE STATEMENTS.

The relative favor and use of the different classes of steamers may be easily gathered from the preceding table. Concerning the changes which have marked the history of construction of the whole lake fleet, Lieutenant Charles C. Rogers, United States Navy, says, in an article recently published in Scribner's:

The history of marine architecture does not furnish another instance of so rapid and complete a revolution in the material and structure of floating equipment as has taken place on the Great Lakes since 1886. In that year the total valuation of the vessels by Lloyds was about \$30,600,000. In 1889 60 new steamers and 11 sailing vessels, aggregating 70,000 tons and valued at \$6,650,000, were added to the fleet. During the 4 winters of 1886-1890 the tonnage of the lakes was nearly doubled, 206 vessels, measuring 399,975 tons were turned out of the shipyards, with a valuation of \$27,389,000. During the same time the number of steamers of more than 1,500 net register tons increased from 21 to 110. The two valuations of the fleet already presented differ by more than \$9,000,000, but either one emphasizes the fact of the very recent and extraordinary growth of this commerce and renders it difficult to predict the increase in the tonnage and the size of vessels upon the lakes during the few years that remain till the opening of the next century. * * * The sailing vessel has almost disappeared from the lakes; the square-rigged ship is no longer seen, and only a few of the great cargo-carrying schooners are left. The sailing fleet was succeeded by the propellers, * * * with its tow of one or more consorts and it in turn is giving way to the modern steamer, maintained at a little more than one-half the cost, while having a carrying capacity quite as great, a speed double that of the propeller and consort, and making two or three round trips for one of the tow. * * * The shipbuilders of the lakes are progressive, and keep pace with all improvements in marine architecture. Steel vessels are built with

double bottoms, water-tight compartments, triple expansion engines, and modern electrical and steam appliances. The structural strength may be realized from the fact that a large proportion are built for the trade in iron ore. At a time trial at Escanaba, during the summer of 1887, a steamer was loaded with over 2,000 tons of ore and steamed away from the dock in 45 minutes after being placed under the chutes. The record shows that another vessel was loaded with 2,800 tons of coal in 1 hour and 50 minutes; 300 tons for fuel were put on board in another hour; so that in 2 hours and 50 minutes after opening the hatches the vessel was loaded and coaled. That ordinary seagoing ships will not stand the strain of this traffic is demonstrated by the fact that 4 steel steamers built on the Clyde for Canadian owners had to be repaired and strengthened throughout after one season's work to fit them for further service. These vessels steamed across the Atlantic, were cut into halves on the lower St. Lawrence, the sections being then towed through the canals and put together on the lakes. 2 more were built on the Clyde, with the benefits of this experience and of the builder's visits to our northwestern shipyards. * * * The record of large cargoes is equally creditable. The Maryland, belonging to the Interocean Transportation Company of Milwaukee, has carried 3,737 net tons of ore from Escanaba to South Chicago on a draft of 16.5 feet; the E. C. Pope, owned by Eddy Brothers, of Bay city, transported 3,628 net tons from Escanaba to Buffalo on 16 feet draft, and 3,167 tons from Ashland to Lake Erie, drawing 14.5 feet. * * * In the Cleveland shipyards were built the magnificent iron and steel fleets of the Northern Steamship Company, the Mutual Transportation line, and the Minnesota Iron Company of Chicago, costing \$200,000 each; those of the Western transit line of the New York Central railroad, the equals in speed, style, and carrying capacity to any ocean vessel, and the 5 passenger steamers of the Detroit and Cleveland Steam Navigation Company, costing as high as \$350,000 each, and ranking among the finest passenger boats in the country. From the shipyards of Chicago steel steamers of 4,000 to 5,000 tons displacement have been launched. 5 large steamer lines ply regularly to ports on lakes Erie, Huron, Superior, and Michigan, with a combined fleet of over 60 steamers and a capacity ranging from 1,750 tons to more than 3,000 tons. The Union Steamboat Company owns the Oswego and Chemung, the largest steamers of the lakes, with 4,800 tons displacement and a total cost of \$560,000; and it was on these lakes that the whaleback was first put to running.

FIGURES FROM LLOYDS.

In addition to the comparative statistics which have been collated from the census returns for 1880 and 1890 and from the data collected by the Commissioner of Navigation, a third series has been compiled from Lloyds Inland Register for the years 1886, 1887, 1888, 1889, and 1890. A bulletin giving these figures in detail was prepared by Mr. Charles H. Keep, under the direction of Professor Henry C. Adams, and was issued in February, 1891; but in view of the fact that the statistics in question cover but 6 years out of the decade and that the comparative statistics secured from the other sources just referred to are so much more comprehensive, it will be scarcely necessary to do more than to present a résumé containing the salient facts of the tables given in the bulletin in question.

Before considering these tables the reader should be notified that barges are included under the head of sailing vessels, and that no comparison between the totals secured from Lloyds and those from other sources can be effected owing to the fact that the Register only takes cognizance of certain craft, while so far as the values go those quoted by Lloyds are plainly excessive:

TABLE M.—STATEMENT SHOWING THE COMPARATIVE STATISTICS OF THE NUMBER, TONNAGE, AND VALUE OF THE FLOATING EQUIPMENT OF THE GREAT LAKES AND RIVER ST. LAWRENCE, DRAWN FROM LLOYDS REGISTER FOR THE YEARS 1886, 1887, 1888, 1889, AND 1890.

	1886		1887		1888		1889			1890					
	ves-	Net ton nage of vessels.		ves-	Net ton- nage of vessels.	of	· ves-	Net ton- nage of vessels.	of	V:08-	Net ton- nage of vessels.	of	V68-	Net ton- nage of vessels.	of
Total	1,997	634,652	\$30,597,450	1.829	606,353	\$35,634,950	1,884	657,723	\$42,210,200	1,947	753,819	\$49,957,550	2,055	826,300	\$58,128,500
A-Structure:		-											' 		
Side wheel steamers	43	14,150	1,494,500	38	13,692	1,637,000	36	13,742	1,609,500	39	16,443	2,163,000	42	16,949	2,209,500
Propellers under 1,000 tons	335	177,402	9,475,100	354	125,057	10,149,100	379	129,744	11,353,300	409	149,793	12,652,800	431	154,232	13,905,600
Propellers between 1,000	72	86,728	5,935,000	92	112,968	8,841,000	105	129,410	10,246,000	116	144,513	11,379,000	122	151,611	11,804,000
and 1,500 tons.	1										1		Ŧ		
Propellers over 1,500 tons	21	34,868	2,645,000	31	51,761	4,085,000	46	78,103	6,923,000	75	130,235	11,802,000	110	188,390	17,737,000
Tugs	466	11,737	2,497,600	424	10,847	2,378,400	423	11,371	2,439,100	426	12,323	2,703,750	448	12,520	2,778,250
Schooners	730	183,792	5,398,850	587	166,167	4,972,050	582	164,240	5,691,800	580	164,285	4,947,500	577	158,620	4,726,150
Barges	330	125,975	3,151,400	303	125,861	3,572,400	313	131,113	3,947,500	302	136,227	4,309,500	325	144,038	4,968,000
B—Material:	1	!				į	1	İ			ì	1	1		
Steel	6	6,459	694,000	11	14,134	1,654,000	23	31,928	3,925,000	41	49,784	7,324,500	68	99,457	11,964,500
Iren	35	22,714	2,675,000	37	23,464	2,815,000	39	24,940	2,765,000	34	24,450	2,608,500	39	24,673	2,638,000
Composite	2	63	39,000	4	2,391	319,000	7	5,178	579,000	. 9	9,996	1,079,000	13	13,554	1,465,000
Woed	1.954	605,416	27,189,450	1,777	566,364	30,846,950	1,815	595,677	34,941,200	1,863	669,589	38,945,550	1,935	688,676	42,061,000
C—Sail or steam:	İ		i									!		İ	
Steam vessels	937	324,885	22,047,200	939	314,325	27,090,500	989	3 6 2,370	32,570,980	1 065	453,307	40,700,550	1,153	523,702	48,434,350
Sailing vessels	1,060	309,767	8,550,250	890	292,028	8,544,450	895	295,353	9,639,300	882	300,512	9,257,000	902	302,658	9,694,150

CHANGES IN EQUIPMENT.

In the text of Bulletin No. 29, Professor Adams said:

It would be difficult to add anything to the impression which a study of the preceding figures must produce. There are, however, certain facts to which it may not be inappropriate to call particular attention.

First. The figures presented in the tables show that sailing vessels are fast giving place to vessels propelled by steam. Taking schooners and barges together, and comparing the figures for 1886 and 1890, it appears that there has been a decrease of 14.91 per cent in number, 2.29 per cent in tonnage, and 13.38 per cent in value. Taking schooners and barges separately, the greater decrease is in schooners. Thus, although there is an actual decrease in the number of barges in 1890 as compared with those of 1886, there is an increase of 14.34 per cent in the tonnage of this class of vessels. These facts indicate an increased use of steam both for immediate propulsion and for towing.

Second. The figures show that steam vessels which have been built during the last 4 years are of a constantly increasing size. In 1886 there were but 21 propellers of over 1,500 tons burden, in 1890 there were 110 propellers of this class. But the tonnage of vessels of this class has increased more rapidly than their number. Thus the total tonnage of the 21 vessels of over 1,500 tons burden in 1886 was 34,868 tons, while the total tonnage of the 110 vessels in 1890 was 188,390 tons; that is to say, the percentage of increase in the number of vessels is 423.81, while the percentage of increase in tonnage is 440.29. The total value of this class of vessels in 1886 was \$2,645,000, in 1890 it was \$15,000.092, showing an increase for the 4 years of 570.59 per cent. A comparison similar to this for any of the classes of vessels, when taken in connection with well-known facts relative to the ownership of these large vessels, clearly shows that the traffic of the Great Lakes is rapidly coming under the control of companies having at their command large capital

Third. The same conclusion may be arrived at if the changes in the material made use of in the building of new vessels are considered. Steel is more generally used for large vessels than iron, composite, or wood. In 1886 there were but 6 steel vessels affoat on the lakes, with an aggregate tonnage of 6,459 tons and an aggregate value of \$694,000. If by the side of these figures are placed the corresponding data for the year 1890, it appears that there are now 68 steel vessels affoat on the lakes, with an aggregate tonnage of 99,457 tons and an aggregate value of \$11,964,000. This shows an increase in number of vessels of 1,033.33 per cent, in tonnage of 1,439.82 per cent, and in valuation of 1,623.99 per cent. Iron and wooden vessels have barely held their own during these years. Vessels built of composite, on the other hand, show a marked increase, both in number, tonnage, and value. These facts indicate that a new factor is being introduced into the problem of transcontinental transportation.

THE THREE CANALS.

The comparative statistics furnished in the 3 series of tables which have just been reviewed are important and valuable as showing how steady and rapid the growth of trade has been on all the lakes, treated as a system, but it may be stated without any attempt at discrimination that the development of Lake Superior's commerce has been exceptionally remarkable. This has been undoubtedly due, in a very large part, to the opening of the St. Marys Falls canal, and it will be quite in keeping with the plan of the text to consider at this point the results which have attended the inception and extensions of this passageway between the "Brother to the Sea" and the lower lakes, and then to somewhat more briefly consider the returns of the other 2 statistical keys to the commerce of the Great Lakes, the Detroit river and canal and the Welland canal.

THE ST. MARYS FALLS CANAL.

Long after a population had moved into the states and territories bordering on the other lakes of the system Lake Superior was unknown and unexplored. "For two centuries", says General Poe, "this greatest of all inland seas lay in distant isolation enfolded by a wilderness, the coming civilization heralded only by the missionary and fur trader coasting along its silent shores". The mineral treasures in this "enfolding wilderness", originally drew the explorer up the St. Marys river, but it was not until in 1855, when the canal and first lock at St. Marys were completed, that the commerce of Lake Superior can be said to have had any appreciable existence. It will not be necessary to follow the growth of the commerce through the canal year by year, but taking the traffic report from 1881, at which date the new and larger lock was constructed, it is seen that in 1882 there passed the canal 2,029,000 tons of freight, in 1883 there were 2,267,000 tons; in 1885 these figures had risen to 2,356,000 tons, in 1886 to 4,527,750 tons, in 1887 to 5,494,649 tons; that in 1888 the figures passed the six-million limit, standing at 6,411,423 tons; that in 1889 they were 7,516,022 tons, and that in 1890 they had risen to 9,041,213 tons, a record of increase in traffic which is certainly unparalleled.

Taking up the subject in a somewhat more detailed form, a treatment which the importance and pertinency of the subject merits, it is found that the canal for 1889 was open to navigation 234 days, the first vessel having passed April 15, and the last December 4, 1889, thus making the season 22 days longer than that of 1888. The average number of vessels passing per day for the whole season was 40.9, and for the months of June, July, and August, 50. The number of vessel passages of all classes exceeded that of the preceding season by 1,776, or a little less than 23 per cent. The increase in the freight movement for 1889 over that of 1888 was 1,104,599 tons, or 17 per cent, while the increase in registered tonnage was 2,091,276 tons, or 41 per cent. This wide discrepancy was due to the low stage of water, which did not permit vessels to carry full loads. Tables L, M, and N, on the following page, show these facts, as well as furnish a comparative statement of the amount and value of commerce passing through the canal for the calendar years 1888 and 1889.

TABLE L.—STATEMENT SHOWING THE INCREASE IN THE DETAILS OF BUSINESS DONE AT THE ST. MARYS FALLS.

CANAL IN 1888 AND 1889.

ITEMS.		NUMBER AN	D AMOUNT.	INCREASE.		
	Unit of fact.	1888	1889	Number and amount.	Per cent	
Vessels	Number	7, 803	9, 579	1,776	23	
Lockage	Number	3, 845	4, 684	. 839	22	
Tonnage, registered	Net tons	5, 130, 659	7, 221, 935	2, 091, 276	41	
Tonnage, freight	Net tons	6, 411, 423	7, 516, 022	1, 104, 599	17	
Passengers	Number	25, 558	25, 712	154	1	

TABLE M.—STATEMENT SHOWING THE INCREASE AND DECREASE IN THE AMOUNT OF THE VARIOUS COMMODITIES.
PASSING THE ST. MARYS FALLS CANAL DURING 1888 AND 1889.

ITRWS.	Unit of	QUANTITY.		INCREASE.		DECREASE.		
	measurement.	1888	1889	Amount.	Per cent.	Amount.	Per cent.	
Coal (hard and soft)	Net tons	2, 105, 041	1, 629, 197	\		475, 844	23	
Flour	Barrels	2, 190, 725	2, 228, 707	37, 982	2			
Wheat	Bushels	18, 596, 351	16, 231, 854			2, 364, 497	13	
Other grain	Bushels	2,022,308	2, 133, 245	110,937	, 5		: 	
Manufactured iron	Net tons	48, 859	31, 545	1	· • • • • • • • • • • • • • • • • • • •	17, 314	. 35	
Pig iron	Net tons	14, 844	26, 016	11, 173	i 75			
Salt	Barrels	210, 433	168, 250		. 	42, 183	. 20	
Copper	Net tons	28, 960	33, 456	4, 496	16			
Iron ore	Net tons	2, 570, 517	4, 095, 855	1, 525, 338	59 .		 .	
Lumber	M. ft. B. M	240, 372	315, 554	75, 182	31		.	
Silver ore and bullion	Net tons	3, 385	5, 947	2, 562	76			
Building stone	Net tons	33, 541	33, 538	1	.	3		
Unclassified freight	Net tons	345, 854	312, 410	\$		33, 444	10	

TABLE N.—STATEMENT SHOWING THE INCREASE AND DECREASE IN THE VALUE OF THE VARIOUS COMMODITIES PASSING THE ST. MARYS FALLS CANAL DURING 1888 AND 1889.

ITEMS.	Unit of meas-	Price per		LUATION.	: Increase in	Decrease in value.
	urement.	unit.	1888	1889	value.	
Coal	Net tons	\$ 3. 50	\$7, 367, 614	\$5, 702, 190	- :	\$1,665,454
Flour	Barrels	5.00	10, 953, 625	11, 143, 535	\$189, 910	
Wheat	Bushels	0.98	18, 224, 424	15, 907, 217	i	2, 317. 207
Other grain	Bushels	0.98	1,981.862	2, 090, 580	108, 718	.
Manufactured iron	Net tons	50.00	2, 442, 950	1, 577, 250	1	865, 700
Pig iron	Net tons	17.00	252, 348	442, 272	189, 924	
Salt	Barrels	1.00	210, 433	168, 250	· · · · · · · · · · · · · · · · · · ·	42, 183
Copper	Net tons	200.00	5, 792, 000	6, 691, 200	899, 200	! !
Iron ore	Net tons	3.50	8, 996, 810	14, 335, 493	5, 338, 683	
Lumber	M. ft. B. M	18.00	4, 326, 696	5, 679, 972	1, 353, 276	
Silver ore	Net tons	153. 79	520, 579	914, 589	394, 010	j
Building stone	Net tons	10.00	335, 410	335, 3 8 0	1	30
Unclassified freight	Net tons	60.00	20, 751, 240	18, 744, 600	······	2, 008, 640
Total			82, 156, 021	83, 732, 528	8, 473. 721	6, 897, 214
Net increase		 .			. il 1, 576, 507	

QUANTITIES AND VALUES.—It will be observed that the increase in the amount of iron ore transported in 1889 over that transported in 1888 was no less than 1,525,338 tons, figures which are actually greater than the total increase of freight moved during the season, that increase being 1,104,599 tons. The figures 1,525,338 tons are, however, diminished or offset by a decrease in both the coal and wheat traffic. The decrease in the coal traffic amounted to 475,844 tons, or 23 per cent, and was probably owing to a lighter demand for the mineral, due to the preceding mild winter. It should be stated that in the valuations which are put on the freight the same prices per unit are employed for both the years 1888 and 1889, as it is believed that this method affords a better basis for comparing the business year by year than if the prices were amended to conform to each annual quotation.

The total number of vessels, 9,579, which is set down as the record of those passing through the canal in 1889, includes 6,501 steamers, 2,635 sailing vessels, and 443 unregistered craft in tow.

The unclassified freight, it will be observed, has been brought down to 4 per cent of the total freight movement, and even this small percentage may be reduced by the statement that it includes 2,946 tons of wool and 304 tons of

No returns had been received up to the time of writing of a sufficiently recent date to be available for the construction of a detailed comparative table for 1889 and 1890, but the following statement of the business of the canal for the fiscal year ending June 30, 1890, will show that the steady increase of business marking the preceding years would surely attend the report for the completed season of 1890, while the statement immediately following it (Table P) will show by totals the uninterrupted growth of the canal's commercial importance for the 4 calendar years 1887-1890, inclusive:

TABLE O .- STATEMENT OF THE BUSINESS OF THE ST. MARYS FALLS CANAL DURING THE FISCAL YEAR ENDED JUNE 30, 1890.

NUMBER AND CLASS OF VESSELS PASSED. Side-wheel steamers. 76 6,806 Propellers.... 2,834 392 Rafts and unregistered craft..... Total passages 10, 108 FREIGHT AND PASSENGER TRAFFIC. Coal (net tons).... 1, 894, 483 36, 086 Copper (net tons) 2, 592, 736 Flour (barrels) Wheat (bushels) 19, 459, 736 Other grain (bushels) 2, 732, 698 Iron ore (net tons)..... 4, 404, 935 Pig and manufactured iron (net tons) 72, 163 5,905 Salt (barrels) Building stone (net tons). 40, 829

Number of passengers Total registered tonnage (net tons)..... 7, 899, 604 Total freight tonnage (net tons)..... 8, 288, 580 Total registered tonnage since opening the canal in 1855 (net tons) 56, 539, 876

Wool (net tons)

Hides (net tons).....

Miscellaneous and unclassified freight (net tous)....

TABLE P .- STATEMENT SHOWING THE COMPARATIVE TOTALS OF THE ST. MARYS FALLS CANAL FOR THE YEARS 1887, 1888, 1889, AND 1890.

2,597

344, 425

24, 125

455

•	TONNAGE PASS	ED THROUGH.		Cost of water carriage.	Cost per ton-mile.	
YEARS.	vessel ton actual	Net tons actual freight.	Valuation of cargoes.			Value of the fleet.
1887	4, 897, 598	5, 494, 649	\$79, 031, 757	\$10, 075, 153	2.3 mills.	\$19, 773, 950
1888	5, 130, 659	6, 411, 423	82, 156, 021	7, 883, 077	1.5 mills.	21, 895, 400
1889	7, 221, 935	7, 516, 022	83, 732, 528	8, 634, 246	1.5 mills.	26, 926, 200
1890	8, 454, 435	9, 041, 213	102, 214, 948	9, 472, 214	1.3 mills.	29, 635, 500

By comparing the freight tonnage given in Table O as passing through the St. Marys Falls canal with the total receipts and shipments by Lake Superior ports it will be noticed that the canal tonnage exceeds the figures given in Table 7, the canal tonnage being 8,288,580 tons, while the Lake Superior tonnage stands at only 7,925,930, a difference of 362,650 tons. This is due in part to the fact that the year covered by the canal report is made up of the last 6 months of the year 1889 and the first 6 months of the year 1890, while the year from which the lase report is made is composed of the 12 months ending December 31, 1889, and it will be remembered that the winter embraced within the fiscal year 1889-1890 was a remarkably open one, thus permitting a late fall and an early spring trade. The discrepancy referred to is also partly explained by the fact that the tables of receipts and shipments for Lake Superior do not include the traffic between Canadian ports, and consequently take no account of the lake commerce of the Canadian Pacific railway originating at Port Arthur and passing through the canal Some idea of the extent of this commerce may be gained from the fact that of the wheat passing through the canal during the lake navigation season of 1889 not less than 2,603,539 bushels are known to have been shipped from Port Arthur, while it is believed that the total shipments from that port may have been as high as 3,000,000 bushels, or 90,000 tons.

The statement for the fiscal year of 1889-1890 is particularly interesting because it rounds up the period of 35 years, which date back to the opening of the canal in 1855. The statistics of freight movement have not been kept with sufficient exactness for that number of years to give reliable details, but the records show that for the 35 years of its existence ending June 30, 1890, there had passed through the canal no less than 56,539,876 tons of freight. It is no less interesting to find that of this aggregate 35,588,389 tons, or about five-eighths of the whole, had passed since the opening of the new lock, September 1, 1881. The statement for the fiscal year 1889-1890 also includes the interesting but unspecified fact that during the last month of the fiscal year (June, 1890) the amount of freight which passed through the canal was 1,413,001 tons, the largest monthly amount on record, and that on one day in the same year, May 26, 1890, there passed through 74,686 tons of freight, this being the largest daily amount ever recorded. From 7:10 a. m., May 25, to 5:58 a. m., May 27, 1890, a period of 46 hours and 48 minutes, the lock was constantly in motion. These figures show that the limit of the present canal's capacity is being rapidly approached. In fact, it was seen as long ago as 1886 that the ultimate capacity of the canal would be reached in a very few years, and a still further enlargement was then proposed, which is now in progress. This will consist of a lock 800 feet long by 100 feet wide, with a depth of 21 feet on the sills, a lift of 18 feet (the full descent of St. Marys Falls), and the deepening of the canal to 20 feet. The new lock is to be placed upon the site of the two old ones, which lie between the present lock and the river, and will be used in connection with that now in operation. The cost of the enlargement is estimated at \$4,738,865; the time for its execution was set for 5 years, and when finished it will be the largest single lock in the world. If on the completion of this enlargement the traffic of the canal takes such an upward bound as it did after the second enlargement, and there is no reason to doubt that it will, it seems certain that its traffic returns will still more distinctly lead those of the Suez canal than they do now.

OPERATIONS AND EARNINGS.—Among the various facts and figures which have been gathered at the canal as the "statistical key" to so large a portion of the lake traffic, none are more interesting than those of the earnings and operations of the craft passing the canal. In order to determine the total amount paid for the lake transportation of the freight carried through the canal during the season of 1889, a calculation of the freight rates between Lake Superior and the lower lake ports was made from the results of a diligent collection of data by the United States Army engineers in charge, and this adopted mean rate was applied to the amounts of freight passing the canal with the result seen in the following table, which shows the total cost of carrying the freight; or, to put it in another way, it shows the gross earnings of the various vessels made by the transportation of the indicated freight:

TABLE Q.—STATEMENT SHOWING THE FREIGHT RATE PER UNIT OF THE SEVERAL COMMODITIES CARRIED THROUGH THE ST. MARYS FALLS CANAL DURING THE SEASON OF 1889, TOGETHER WITH THE TOTAL AMOUNTS PAID FOR THE MOVEMENTS OF THE TOTAL COMMODITIES.

ARTICLES.	ARTICLES. Unit. Quantity.		Freight rate per unit.	Amount paid for freighting.
Total				\$8, 634, 246, 63
Coal	Ton	1, 629, 197	\$0.47	765, 722, 59
Flour	Barrel	2, 228, 707	0. 18	401, 167. 26
Wheat	Bushel	16, 231, 854	0.04	649, 274, 16
Other grain	Bushel	2, 133, 245	0, 031	69, 330. 46
Manufactured iron	Ton	31, 545	2. 10	66, 241. 50
Pig iron	Ton	26, 016	1.45	37, 723, 20
Salt	Barrel	168, 250	0. 18	30, 285. 00
Copper	Ton	33, 456	2. 25	75, 276. 00
Iron ore	Ton	4, 095, 855	1.14	4, 669, 274, 70
Lumber	M feet, B. M	315, 554	2. 70	851, 995. 80
Silver ore and bullion	Ton	5, 947	1.90	11, 299, 30
Building stone	Ton	33, 538	2. 07	69, 423, 66
General merchandise	Ton	312, 410	3.00	937, 230. 00

The nature of the data from which the preceding table was formed was such that it included cost of loading and unloading.

Put into a condensed form the results obtained were as follows:

Total mile-tons.	5, 940, 646, 352
Total freight paid	\$8, 634, 246. 63
Cost per ton-mile	1.5
Average distance freight was carriedmiles	790.4

CANADIAN AND AMERICAN TONNAGE.—It has been said that the returns of tonnage made for the canal embrace both American and Canadian craft, and in the following statement a segregation of these is made, it being understood that the number of vessels given represents the actual number of craft which passed the canal during the year 1889, counted only as a fleet, and not as a repetitive aggregate:

TABLE R.—STATEMENT SHOWING THE NUMBER, TONNAGE, AND VALUE, AND PASSENGER AND FREIGHT TRAFFIC OF AMERICAN AND CANADIAN CRAFT PASSING THROUGH THE ST. MARYS FALLS CANAL IN THE SEASON OF 1889.

CRAFT.	Number.	Vessel tonnage.	Freight tonnage.	Number of passengers.	Valuation of vessels.
Total	581	394, 727	7, 516, 022	25, 712	\$26, 989, 389
American vessels	521	371, 264	7, 254, 309	13, 740	25, 391, 789
Steamers (registered)	308	250, 959	4, 964, 724	13, 740	20, 947, 500
Sail vessels (registered)	208	118, 595	2. 253, 900	·	4, 381, 100
Sail vessels (unregistered)	5	a1,710	a35, 685	·	a63, 189
Canadian vessels	60	23, 463	261, 713	11,972	1, 597, 600
Steamers (registered)	37	15. 422	211, 075	11, 972	1, 385, 000
Sail vessels (registered)	23	8, 041	50, 638		212, 600

a Estimated.

The following facts regarding this canal may be stated in conclusion:

The comparatively small average distance which freight was carried in 1889 is because in that year there was a falling off in the transportation of wheat, already referred to, and an increase in that of ore, which is a shorter distance freight.

The greatest number of miles run by any one steamer during 1889 was 33,344, by the propeller Athabaska.

The greatest amount of freight carried and the greatest number of mile-tons to the credit of any one vessel during the season was by the freight propeller Northern Wave, which amounted to 59,001 net tons of freight and 58,311,447 mile-tons.

The largest single cargo carried by a steamer was 2,839 net tons, by the freight propeller Pontiac.

The largest single cargo carried by any vessel was by the lumber barge Wahnapatae, and consisted of 2,030,000 feet, board measure, green lumber, estimated at 4,060 tons.

DETROIT RIVER AND CANAL.

Just as the St. Marys Falls canal stands as the statistical key to the commerce entering and leaving Lake Superior, so the Detroit river stands between that of Lake Erie and the upper lakes. In the case of the St. Marys Falls canal a very large portion of the traffic was that which owes its origin to Lake Superior and the northwest territory, while in the case of Detroit river all the lakes can be said to be brought under contribution. A description of the improvements which have been made by the United States Army Corps of Engineers in and about Detroit river will be found in that portion of the text which may be considered as an annotation on the table of congressional appropriations. As to the commerce of American craft which passes through Detroit river, the round figures for the navigation season of 1889 are 90,000 tons of registered tonnage per day, or nearly 20,000,000 tons per year. The exact figures for the 234 days of navigation, which made up that season, are set down in the following summary, it being understood that the figures of number and tonnage are the aggregates of every day's record:

TABLE S.—STATEMENT SHOWING THE NUMBER AND TONNAGE OF THE VESSELS PASSING THROUGH DETROIT RIVES
DURING THE SEASON OF 1889, WITH A SEGREGATION BY NATIONALITIES.

	Number.	Tonnage.
Total	59. 737	36, 203, 606
∆ :derican	32, 415	19, 646, 000
Canadian	27, 322	16, 557, 606

The figures of comparison between the Canadian traffic of the seasons of 1888 and 1889 are not at hand, but from the returns made of the commerce in American bottoms it is found that the increase in the number of vessels passing Detroit river in 1889 over 1888 was 1,011, while the increase in the tonnage was 546,940 tons.

The freight movement through the river for the year in American craft is given by principal commodition in the following table, and it is an interesting point to note how close is the total of freight traffic to that of the

total of vessel tonnage, namely, 19,717,860 tons of freight to 19,646,000 tons of tonnage, which is the aggregate of the registered tonnage of the 32,415 American vessels which passed and repassed through the river in the process of carrying the freight in question:

TABLE T.—STATEMENT SHOWING THE ESTIMATED WEIGHT IN TONS OF THE FREIGHT PASSING THROUGH DETROIT RIVER IN AMERICAN VESSELS FOR THE SEASON OF 1889.

Barley	38, 294
Coal	5, 313, 419
Corn	1, 777, 750
Flour	651, 395
Iron ore	6, 610 293
Lumber	2, 545, 792
Laths	23, 699
Oats	262, 896
Pig iron	94, 337
Salt	47, 737
Shingles	27, 668
Wheat	824, 451
Other grain	105, 412
Miscellaneous.	1, 390, 717
Total	19, 717, 860

THE WELLAND CANAL.

The third great canal to be mentioned when considering the facilities of intercommunication between the lakes, and which occupies a position in their statistical economy almost equal in importance to that of the St. Marys Falls canal and Detroit river, is the Welland canal, connecting Lake Erie and Lake Cntario. The present Welland canal is so different in many of its features to the old Welland canal that it is known as and practically is a new canal. It starts from Port Colborne, on Lake Erie, at the head of Gravely bay, and reaches a summit level near Allanburg, from which point to Port Dalhousie, on Lake Ontario, a distance of 12 miles, there are 25 lift locks and regulating weirs, piers, and abutments for 12 road and 2 railroad bridges, 6 culverts to carry water courses under the canal and 1 for a public road, and a tunnel for the Great Western railroad. The engineering difficulties were largely encountered in this northern division, although in the southern division, which embraces the 15 miles between Port Colborne and Allanburg, the canal is crossed by 6 road and 3 railroad bridges, including an aqueduct of large dimensions through the Chippewa river, a lock at Welland, and another with 4 sets of gates at Port Colborne. The money expended on the undertaking up to 1889 amounted to \$23,787,950, since which time the amount has been raised to nearly \$25,000,000. Close statistics can not be given of the traffic conducted through the Welland canal, the work being under the control of the Canadian government, but it is stated by Mr. W. A. Livingstone, of Detroit, in his pamphlet entitled "The Great Lakes Problem", that the total traffic of actual freight in 1890 through the Welland canal was 1,016,165 net tons; that the quantity passing eastward through the canal from United States ports to United States ports had increased from 96,226 tons in 1881 to 318,259 tons in 1890, and that the increase in this movement in 1890 over that of 1880 was 20,906 tons.

The whaleback steamers of the American Steel Barge Company are the largest vessels that have passed through the Welland canal, and they are 265 feet long, 38 feet beam, and have an average draft of 15 feet when loaded.

CONGRESSIONAL APPROPRIATIONS.

The earliest appropriation made by the government for the improvement of the harbors of the Great Lakes and river St. Lawrence was in 1823, when an appropriation was made for the survey of Erie harbor of Pennsylvania. Since that time nearly 150 localities, scattered over the Great Lakes and St. Lawrence and Niagara rivers, have been improved under congressional aid. The sums appropriated up to the close of 1890 amounted to \$40,912,975, of which amount \$23,700,565 was appropriated up to and including 1879, \$12,999,165 was included in the decade marked by 1880-1889, inclusive, the remaining \$4,213,245 having been appropriated by the act of Congress of September, 1890.

For the improvement of the various harbors and shipping points on Lake Superior there has been appropriated \$1,233,300, the earliest appropriation going back to 1858, between which time and the close of 1879 there was appropriated \$3,467,555, the sum of \$3,738,500 having been appropriated from 1880 to 1889, and \$2,027,245 by the act of Congress of September, 1890.

For Lakes Huron and St. Clair the appropriations have been \$3,691,700, of which amount \$1,934,310 was appropriated from 1852 to the close of 1879, \$1,511,890 for the decade ending with 1889, and \$245,500 by the act of Congress of September, 1890.

The appropriations for the improvement of Lake Michigan ports have been \$11,251,243, the earliest appropriation being in 1826, for La Plaisance bay, when that harbor was improved by the expenditure of \$19,803. The act of Congress of September, 1890, allotted \$893,000 for the improvement of all the lake points; but the largest appropriations were made up to and including 1879, by which time \$6,440,843 of the public moneys had been granted for the lake improvements, while for the period 1880–1889 the appropriations amounted to \$3,917,400.

The appropriations for Lake Erie began the earliest of all the lakes, the first, as was noted in the previous paragraph, being made in 1823. The total amount appropriated for this lake up to the close of 1890 was \$8,879,336, of which amount by far the largest portion, \$5,362,336, was appropriated by the close of 1879, the appropriations for the years 1880–1889 being \$2,712,500, and the sum granted by the act of Congress of September, 1890, being \$804,500.

Lake Ontario's appropriations have amounted to \$3,592,730, of which amount \$2,581,855 was appropriated up to the close of 1879, \$895,875 during the 10 years ending 1889, and \$115,000 by the 1890 act of Congress.

On the improvements of St. Lawrence river there has been expended \$251,506 and on those of Niagara river the appropriations have amounted to \$233,598.

Between the sum of these amounts, however, and the \$40,912,975 given as the total appropriation for the Great Lakes there is a difference of \$3,779,562, that sum being made up by general appropriations for which there was no indication of special locality, but which were made for such comprehensive purposes as general survey, chart making, and the building of survey steamers and dredging machines.

In the assignment of appropriations made in the preceding paragraphs the lakes have been made the recognized divisions, but when charged to the states which lie around the lakes the amounts stand as set down in the following statement:

TABLE U.—STATEMENT SHOWING THE AMOUNTS APPROPRIATED BY CONGRESS FOR THE SURVEY, IMPROVEMENT, AND MAINTENANCE OF THE HARBORS OF THE GREAT LAKES AND ST. LAWRENCE RIVER, GIVEN BY PERIODS AND ALLOTTED TO THE RESPECTIVE STATES IN WHICH THE HARBORS LIE.

STATES.	Date of carliest appropri- ation.	Appropriations up to and including 1879.	Appropriations from 1880 to 1889, inclusive.	Appropriations by act of Con- gress September, 1890.	Total appro- priations up to date.
Total		\$23, 700, 565	\$12, 999, 165	\$4, 213, 245	\$40, 912, 975
Minnesota	1871	271, 050	413, 750	147, 350	832, 150
Wisconsin	1836	2, 408, 881	1, 483, 000	472, 395	4, 364, 276
Michigan	1826	7, 266, 398	5, 790, 390	2, 298, 500	15, 355, 288
Illinois	1833	1, 426, 005	1, 120, 400	205, 000	2, 751, 405
Indiana	1836	679, 889	381, 250	57, 500	1, 118, 639
Ohio	1825	2, 580, 987	1, 658, 500	429, 500	4, 068, 987
Pennsylvania	1823	616, 367	235, 500	40,000	891, 867
New York	1826	4, 729, 426	1, 858, 375	563, 000	7, 150, 801
General appropriations, all states	1836	3, 721, 562	58,000		3, 779, 562

For convenience of reference the following list of harbors and trading points which have been improved by government aid has been prepared, the localities being grouped under the titles of the lakes on which they are found, with the state of each locality added:

IMPROVED HARBORS AND RIVERS.

LAKE SUPERIOR.

Agate bay, Minnesota.
Ashland harbor, Wisconsin.
Duluth harbor, Minnesota.
Eagle harbor, Michigan.
Grand Marais harbor, Minnesota.
Grand Marais harbor of refuge, Michigan.
Marquette harbor, Michigan.
Ontonagon harbor, Michigan.
Portage Lake ship canal, Michigan.
St. Marys river and St. Marys Falls canal, Michigan.
Superior and St. Louis bays, Wisconsin.

LAKES HURON AND ST. CLAIR.

Alpena harbor (Thunder bay), Michigan. Au Sable river and harbor, Michigan. Belle river, Michigan. Black river, Michigan. LAKES HURON AND ST. CLAIR-continued.

Cheboygan harbor, Michigan.
Clinton river, Michigan.
Clinton harbor, Michigan.
Detroit river, Michigan.
Harbor of refuge at Sand beach, Michigan.
St. Clair river flats and canal, Michigan.
Saginaw river, Michigan.
Sebawaing harbor, Michigan.

LAKE MICHIGAN.

Ahnapee harbor, Wisconsin.
Black Lake harbor, Michigan.
Calumet harbor and river, Illinois.
Cedar river (Green bay), Michigan.
Charlevoix harbor, Michigan.
Chicago harbor, Illinois.
Fox river, mouth of, Wisconsin.
Frankfort harbor, Michigan.

LAKE MICHIGAN-continued.

Grand Haven harbor, Michigan. Grand river, Michigan. Green Bay harbor, Wisconsin. Kenosha harbor, Wisconsin. Kewance harbor, Wisconsin. Lake Winnebago, Wisconsin. La Plaisance bay, Michigan. Ludington harbor, Michigan. Manistee harbor, Michigan. Manistique harbor, Michigan. Manitowoc harbor, Wisconsin. Menominee harbor, Wisconsin. Michigan city (outer harbor), Indiana. Michigan city (inner harbor), Indiana. Milwaukee bay, Wisconsin. Milwaukee harbor, Wisconsin. Muskegon harbor, Michigan. New Buffalo harbor, Michigan.

IMPROVED HARBORS AND RIVERS-Continued.

LAKE MICHIGAN—continued.

Oconto harbor, Wisconsin. Pensaukee harbor, Wisconsin. Pentwater harbor, Michigan. Petoskey harbor, Michigan. Port Washington, Wisconsin. Portage Lake harbor of refuge, Michigan. Racine harbor, Wisconsin. St. Josephs harbor, Michigan. St. Josephs river (survey), Michigan. Saugatuck harbor, Michigan. Sheboygan harbor, Wisconsin. South Haven harbor, Michigan. Sturgeon bay, Wisconsin. Two Rivers harbor, Wisconsin. Waukegan harbor, Illinois. White river harbor, Michigan.

LAKE ERIE.

Ashtabula harbor, Ohio. Black river harbor, Ohio. Buffalo harbor, New York.

LAKE ERIE—continued.

Cattaraugus creek, New York. Cleveland harbor, Ohio. Conneaut harbor, Ohio. Cunningham creek, Ohio. Dunkirk harbor, New York. Eric harbor, Pennsylvania. Grand river harbor (Fairport), Ohio. Huron river and harbor, Ohio. Monroe harbor, Michigan. Port Clinton harbor, Ohio. Portland harbor, New York. Rocky river harbor, Ohio. Rouge river, Michigan. Sandusky city harbor, Ohio. Sandusky river, Ohio. Toledo harbor, Ohio. Vermilion river, Ohio.

LAKE ONTARIO.

Black river (Sacketts harbor), New York. Charlotte harbor, New York.

LAKE ONTARIO-continued.

Great Sodus bay, New York.
Little Sodus bay, New York.
Oak Orchard harbor, New York.
Olcott harbor, New York.
Oswego harbor, New York.
Port Ontario harbor, New York.
Pultneyville harbor, New York.
Sacketts harbor, New York.
Sandy creek, New York.
Wilson harbor, New York.

ST. LAWRENCE RIVER.

Grass river, New York. Ogdensburg harbor, New York. Sister islands, New York. Waddington harbor, New York.

NIAGARA RIVER.

Black Rock harbor, New York. Tonawanda harbor, New York.

The importance of the improvement of the shipping facilities of these waters is so undoubted that no excuse is needed for giving space to the subject, and in addition to this bare list of the localities that have been improved the following statement takes up this list and shows what has been done under the appropriations:

LAKE SUPERIOR.

AGATE BAY, MINNESOTA.—This is a small indentation in the north shore of the lake, and though it has ample depth of water it is not protected on the southwest or from the reverse swells of the more dangerous storms of the northeast. The little security it afforded, however, was sufficient to warrant the construction of extensive docks for the handling of ore and other merchandise. The commerce soon grew out of all proportion to the size of the harbor, and for its security it was found necessary to supplement the natural protection by artificial means. Two piers projecting from either shore have accordingly been proposed, and though only one has been partly built the tranquillity of the harbor has been greatly increased by it.

ASHLAND HARBOR, WISCONSIN.—This harbor comprises a portion of Chequamagon bay. It was not thoroughly protected from the storm waves which rolled into its mouth, or from the waves generated by the bay itself, and a breakwater has been accordingly built of about 4,700 feet long, in order to give the requisite shelter. This length is hardly sufficient to afford protection to all the wharves of the city, and it is accordingly proposed to extend it 5,000 feet further.

DULUTH HARBOR, MINNESOTA.—The proposed plan to improve this harbor, which lies at the head of Lake Superior, is to cut a canal through the narrow strip of land or sand bar known as Minnesota point, thus uniting the waters of the bay and Lake Superior, to be followed by the construction of a breakwater parallel to this bar. But little has been done, however, on these projects in consequence of a disputed ownership of the land.

EAGLE HARBOR, MICHIGAN.—This harbor was improved not so much to further commerce as to provide a harbor of refuge. The improvements have consisted of cutting a channel of good depth through a ledge which obstructed the entrance to the bay.

Grand Marais harbor, Minnesota.—On the north shore of Lake Superior there are very few localities where safe anchorage for vessels is to be found, and Grand Marais offers the only place of refuge for vessels during storms between Agate bay and Pigeon river. It is not yet a shipping port of any importance, though it is not distant from the rich deposits of iron ore of the Vermilion range. The improvements have consisted of dredging the harbor basin and the construction of a pier and breakwater.

Grand Marais harbor of refuge, Michigan.—This harbor is accessible only for vessels drawing less than 9 feet, but once within the bay there is ample depth to float the largest vessels. As a harbor of refuge it is of pressing necessity to the shipping navigating the lakes in this vicinity, as the many wrecks in the neighborhood bear witness. The project for the improvement of this harbor has been the creation of a safe entrance to the bay for vessels of the largest size, formed by establishing crib piers sheltering a channel of 300 feet in width.

MARQUETTE HARBOR, MICHIGAN.—The improvement of this harbor has consisted in the erection of a breakwater projecting from the shore into the bay a distance of 2,000 feet. The area of commerce is so rapidly increasing, however, that the extension of the breakwater has become a necessity.

ONTONAGON HARBOR, MICHIGAN.—This harbor is formed by the mouth of the river of the same name, and it has fairly deep water, but its mouth is obstructed by a bar. The project of improvement was to build out parallel piers into the lake on either side of the river's mouth with the expectation that the confined current of the river would scour out a good channel through the bar. The expectation, however, has not been fully realized.

PORTAGE LAKE SHIP CANAL, MICHIGAN.—The appropriation of 1886 was for the examination of the Portage Lake and Lake Superior ship canals, with a view to accept the offer of the company to transfer all their rights to the United States for \$350,000. These canals being the water communication across Keweenaw point, Lake Superior, from Keweenaw bay to Lake Superior, in the state of Michigan. The appropriation of 1890 was for the purchase of these canals.

St. Marys river and St. Marys Falls canal, Michigan.—The improvement here consists of two parts: first, that of obtaining a 16-foot navigation as an approach to the canal, and second, the construction of the canal itself, about a mile in length, which overcomes by its lockage system a difference of level between lakes Superior and Huron of about 18 feet. So enormous has traffic grown over this route that the old locks have been replaced by a single one 515 feet long and 80 feet wide, which in its turn is to be replaced by a new one 800 feet long and 100 feet wide.

SUPERIOR AND ST. LOUIS BAYS, WISCONSIN.—The natural channel connecting these 2 bays with Lake Superior is at the southeastern extremity of Minnesota point, referred to in the paragraph concerning Duluth. Channels have been dredged through the bays to this outlet, which is protected by crib piers having an aggregate length of 5,650 feet.

LAKES HURON AND ST. CLAIR.

ALPENA HARBOR, THUNDER BAY, MICHIGAN.—The important and rapidly growing city of Alpena is situated at the mouth of Thunder Bay river, from which prior to the commencement of the government improvements there was a navigable channel into the bay of 12 feet depth and variable width. This has been improved to a channel of good navigable width and of 14 feet uniform depth.

AU SABLE RIVER AND HARBOR, MICHIGAN.—Before the beginning of improvements the mouth of Au Sable river was 150 feet wide, with a depth of 5 feet over the bar. The project for the improvement of the harbor has been to obtain a channel between the lake and the harbor of not less than 10 feet in depth and 100 feet in width.

Belle River, Michigan.—The projects of improvement here have been to construct an ice harbor of refuge and the formation of a channel from the mouth of the river to the lake.

BLACK RIVER, MICHIGAN empties into St. Clair river at Port Huron, Michigan. At and below its mouth, extending beyond the middle of St. Clair river, there is a bar, and the improvement has been the dredging of a channel through this obstruction.

* CHEBOYGAN HARBOR, MICHIGAN.—Prior to undertaking any improvement at this harbor only 7 feet of water could be carried across the bar at the mouth of the river, and the project of government improvement has been the formation of a channel 200 feet wide and 14 feet deep.

CLINTON RIVER AND HARBOR, MICHIGAN.—In 1870 the channel over the bar at the entrance to the river afforded a depth of only 3.5 feet, while the depth of the river for some distance above was 10 feet, and the government improvement has consisted of securing a navigable depth of 8 feet through the bar.

DETROIT RIVER, MICHIGAN.—Originally the channel at the entrance to Detroit river could not be depended upon for more than 18 feet of water, the ordinary depth being much affected by the direction of the wind. The government project of improvement has consisted of securing and maintaining a channel 400 feet wide and 20 feet deep.

HABBOR OF REFUGE AT SAND BEACH, MICHIGAN.—Before 1876, vessels when caught in heavy weather near the dangerous Pointe Aux Barques (the southern headland of the mouth of Saginaw bay) were compelled to runs distance of 60 miles and find a refuge in St. Clair river, whence, after the subsidence of the storm, those upward bound had to work their way back again. The project of improvement is for the construction of a harbor of refuge at Sand beach.

ST. CLAIR RIVER FLATS AND CANAL, MICHIGAN.—Before the construction of the canal the St. Clair riveremptied into Lake St. Clair through 7 principal mouths or passes, that ordinarily used by vessels being known as the south channel, having a minimum depth of a little less than 11 feet. The St. Clair Flats canal was projected in 1866, with a view to obtaining a straight channel 13 feet deep and 330 feet wide across the flats east of the mouth of this south channel, the work being finished in 1871. The canal is bounded on each side by a dike 7,221 feet long or an aggregate of 14,442 feet. In 1873 the channel was deepened to 16 feet by dredging for a width of 200 feet the width being thus limited by the fact that the slope of the dikes did not admit of dredging to 16 feet for the full width of 300 feet. The present project of improvement is to protect the face of the dikes in such a way that the full width of the channel may be dredged to a uniform depth of 20 feet.

SAGINAW RIVER, MICHIGAN.—Before any improvements were made the entrance to this river was obstructed by a bar about a mile from the shore; and thence to the head of the river, a distance of about 16 miles, the channel was obstructed by a number of other bars. The project of improvement was to dredge out a channel which would have a uniform depth of 10 feet.

SEBEWAING HARBOR, MICHIGAN lies at the mouth of the river of the same name, and the improvements have consisted of the formation and protection of a navigable channel from it into Saginaw bay.

LAKE MICHIGAN.

AHNAPEE HARBOR, WISCONSIN, is a small artificial harbor constructed for local purposes in the mouth of Ahnapee river, and has been formed by the usual process of dredging out a channel and the erection of protecting piers.

BLACK LAKE HARBOR, MICHIGAN, was to have been formed by the completion of a protected channel connecting it with Lake Michigan, but no adequate appropriations for the purpose have been secured. It has a length of 5 miles, an average width of about half a mile, and a navigable depth from end to end of only 4 fathoms. The town of Holland, a thriving place with a population of 3,945, is built at the head of the lake.

CALUMET HARBOR AND RIVER, ILLINOIS.—The object of this improvement was to provide a deep entrance to Calumet river and the port of South Chicago, in order both to increase the commercial facilities of that place and to give relief to Chicago itself.

CEDAR RIVER (GREEN BAY), MICHIGAN.—The harbor of Cedar river is located in the mouth of the river itself, and the improvement of the locality has been effected by dredging out and protecting a navigable channel from the harbor into Green bay.

CHARLEVOIX HARBOR, MICHIGAN, lying between Grand and Little Traverse bays, is formed by Round lake, a picturesque body of water about half a mile long and a quarter of a mile wide, upon the banks of which the town is built. Adjoining it on the land side is Pine lake, and the official project of improvement provides for a navigable channel of good dimensions from Lake Michigan into Round lake and thence into Pine lake.

CHICAGO HARBOR, ILLINOIS.—The improvements of Chicago harbor have consisted, first, of the formation of the outer harbor or basin by including a portion of Lake Michigan just south of and adjoining the entrance to Chicago river, for the purpose of increasing the harbor facilities of the port and to give relief to the overcrowded river, and, second, the construction of an exterior breakwater to shelter the entrance to Chicago river and the outer harbor from northerly storms, and to form a sheltered area or harbor of refuge at the southern end of Lake Michigan. A subsidiary project has been the protection of the entrance to Chicago river by piers.

FOX RIVER (MOUTH OF), WISCONSIN.—This river empties into Green bay. The improvements form a part of the extensive project mentioned under the head of Green Bay harbor, Wisconsin.

FRANKFORT HARBOR, MICHIGAN, is really the little Lake Aux Becs Scies, lying south of Point Betsey, one of the important headlands on the east coast. Separating the little lake from the big one lies a sand spit, and the project of improvement has been to cut a channel through this obstruction.

GRAND HAVEN HARBOR, MICHIGAN, is both a harbor of local importance and of special status as a harbor of refuge for general commerce. The improvements have been the confinement of the volume of water flowing out of Grand river, thus providing an entrance of good width and depth.

GRAND RIVER, MICHIGAN.—The projected work here is that of improving the navigation of the river from Grand Rapids to its mouth at Grand Haven.

GREEN BAY HARBOR, WISCONSIN.—The improvements of Green bay, which lies at the mouth of Fox river, form a part of the original and much more extensive project which was to secure a cheap route of transportation from Mississippi river to the Great Lakes, and also to the Atlantic seaboard via Wisconsin river, Lake Winnebago, Neenah river, Fox river, and Green bay. All the items of appropriation which are set down for these various localities may be considered as having been expended in the survey for or the furtherance of this comprehensive project.

Kenosha harbor, Wisconsin, is situated at the mouth of Pike creek, and the project of improvement is the usual one of the formation and protection of a navigable channel between the harbor and Lake Michigan.

KEWANEE HARBOR, WISCONSIN, is situated at the mouth of Kewanee river, the improvements being of that character which have been already once or twice described.

LAKE WINNEBAGO, WISCONSIN.—The improvements for this lake form a part of the extensive project mentioned under the head of Green Bay harbor, Wisconsin.

LA PLAISANCE BAY, MICHIGAN.—The nineteen thousand and odd dollars set down as the appropriations for the improvement of this place were expended from 1826 to 1836, and were used to form and protect a safe entrance to the bay. The bay is of no present importance. LUDINGTON HARBOR, MICHIGAN.—Ludington is built about the lower end of Pere Marquette lake, which is 9 or 10 miles long and half a mile in average width. A harbor of refuge has been established in the construction of protecting piers from Lake Michigan to deep water in the inner lake.

MANISTEE HARBOR, MICHIGAN, is on Manistee lake, and the improvement has consisted of enlarging and protecting the channel between it and Lake Michigan.

MANISTIQUE HARBOR, MICHIGAN.—The improvement here has been of that kind so often described, to secure and maintain a navigable channel from Lake Michigan to the mouth of Manistique river where the harbor of Manistique is situated.

MANITOWOC HARBOR, WISCONSIN,-A similar project of improvement.

MENOMINEE HARBOR, WISCONSIN .- A similar project of improvement.

MICHIGAN CITY, INDIANA.—The appropriation acts make a distinction between the outer harbor and the inner harbor, separate provision being made for each. The inner harbor, where all the shipping business is done, and which in fact furnishes all the harbor facilities that exist, consists of Trail creek, which winds through the town and which has been dredged landward for a distance of nearly 1.5 miles from the mouth, where piers on each side 100 feet apart projecting into the lake protect the entrance. The outer harbor, so called, consists of several works constructed at different dates and designed for the protection of the general lake commerce, in view of the great development of the shipping industries and the exposed location of the harbor at the head of the lake.

MILWAUKEE BAY AND HARBOR, WISCONSIN.—So far as the bay is concerned the project of improvement has been that of securing anchorage for vessels engaged in the general commerce of the lakes by inclosing its northern section within a breakwater, while the improvement of Milwaukee harbor has been that of gaining and maintaining a navigable channel from Lake Michigan into Milwaukee river, which is really the inner harbor of Milwaukee.

MUSKEGON HARBOR, MICHIGAN.—Muskegon is the principal coast city on the east shore of the lake and the leading one in population and products. It is situated on Lake Muskegon, a body of water about 5 miles long and 1.5 miles in width, into which Muskegon river flows and thence to Lake Michigan through a natural channel maintained by an overflow. The official project had in view the extension of piers and revetments to such a distance into Lake Michigan as to secure a 15-foot navigation, and this result has approximately been attained, although additional development is needed to the works to counteract the formation of the bar outside the entrance. Muskegon is claimed by local authorities to be the largest lumber manufacturing town in the United States, its annual products being 600,000,000 feet of lumber, 500,000,000 shingles, and 175,000,000 lath.

NEW BUFFALO HARBOR, MICHIGAN.—The improvements of this harbor, which lies just above the Indiana state line, were all made between 1852 and 1872, and were of the usual character belonging to lake harbors.

Oconto harbor, Wisconsin, lies at the mouth of Oconto river, which empties into Green bay, and the project of improvement has been to secure a navigable channel from Green bay up Oconto river to the city.

PENSAUKEE HARBOR, WISCONSIN.—The conditions here are so similar to those of Oconto that they need not be detailed.

PENTWATER HARBOR, MICHIGAN.—The town of Pentwater is built at the lower end of Pentwater lake, which is about 2.5 miles long and half a mile wide. The official project connects the inner lake with Lake Michigan by a 12-foot channel protected by piers and revetments 150 feet apart. As in nearly all similar cases, the full depth has not been reliably secured or maintained, the wave action in Lake Michigan tending to the deposit of sand between the piers, while the piers themselves, from their comparatively open character, permit the wash and drift of sand through them from the beaches.

Petoskey harbor, Michigan.—Petoskey is a small village of 2,872 people, occupying a picturesque site of the bluffs overlooking Little Traverse bay, and near its head. The bluffs descend almost vertically to the narrow gravel beach of the bay, which here is fully exposed to the winds from the north and northeast. The present and prospective business of the place is small, and it is chiefly noted as a popular summer resort and for its fine specimens of agate, while, being at the terminus of an important railroad, it is a point of departure to numerous like resorts in the neighborhood of the straits of Mackinaw. During high winds from the north and west these vessels find it difficult to make a landing at the one small dock of Petoskey, and at times find it impossible to do so, when they seek shelter in the commodious natural harbor 3 miles across the bay. This harbor, known as Harbor Springs, is one of the harbors of refuge on the lakes, and therefore the project of building a harbor of refuge at Petoskey has been adversely reported on and the construction of a breakwater only has been recommended.

PORT WASHINGTON, WISCONSIN, consists of two small interior and connected basins, and the object of the improvement has been to secure a navigable channel entrance from Lake Michigan by parallel piers extending from the shore line to 10 feet of water in the lake.

PORTAGE LAKE HARBOR OF REFUGE, MICHIGAN, is a considerable body of water, 3.5 miles long by 1 mile in width, situated nearly midway of the 55 miles of concave coast between Point Betsey and Grande Pointe An Sable. There is no harbor south of Frankfort in the length of this stretch except the Manistee entrance, which has neither the width nor depth adequate to make it available as a harbor of refuge for general commerce, and

many disasters to shipping have occurred. For this reason the official project for Portage lake, under which appropriations have been made since 1879, provided for the construction of a passage through the narrow beach separating Portage lake from Lake Michigan, with a width of 400 feet and a depth of 18 feet, dimensions which are the same as at Grand Haven and which would render the harbor suitable for all lake vessels needing shelter.

BACINE HARBOR, WISCONSIN.—Both the city and harbor of Racine are situated at the mouth of Root river, and the object of the improvements has been the construction and maintenance of a channel 18 feet deep and 160 feet wide from the harbor into the lake.

St. Joseph harbor and river, Michigan.—Where St. Joseph and Pawpaw rivers unite the water area extends into a basin about half a mile in length by one-sixth of a mile in width, which is designated St. Joseph harbor, and as such has been under improvement by the United States since 1836, partly for the benefit of local commerce, but more especially as a harbor of refuge for general commerce. The official project has provided for an entrance with a depth of 16 feet, protected by piers on each side, with an average width of 270 feet.

SAUGATUCK HARBOR, MICHIGAN, is formed at the mouth of Kalamazoo river, and the improvements have been of the usual nature described in speaking of those other localities where the necessity has existed for maintaining a navigable channel.

SHEBOYGAN HARBOR, WISCONSIN, is formed at the mouth of Sheboygan river, and the improvements are those of forming and maintaining a navigable channel of good dimensions from the lake to the harbor.

SOUTH HAVEN HARBOR, MICHIGAN.—The official project for this harbor, which is the mouth of Black river where the town of South Haven is situated, calls for a 12-foot navigable channel with an extreme width of 108 feet.

STURGEON BAY, WISCONSIN.—The object of the government improvements here has been to form a harbor of refuge inclosing the Lake Michigan entrance to Sturgeon Bay and Lake Michigan ship canal, and also to afford a safe entrance to the canal in rough weather.

Two RIVERS HARBOR, WISCONSIN, is situated at the mouth of the Twin rivers, and the improvements have been those of the usual kind described as being necessary under similar conditions.

Waukegan harbor, Illinois.—The character of the improvement of this harbor is somewhat different from that of other points on the Great Lakes. Most of the improvements have consisted in deepening the mouths of streams emptying into the lake, but at Waukegan there is only a creek emptying into the lake, and it is of no importance for harbor purposes. The project of improvement here, therefore, has been to construct an exterior basin of sufficient capacity to meet the requirements of local trade by inclosing a portion of Lake Michigan within sheltering piers.

WHITE RIVER HARBOR, MICHIGAN.—White lake is about 4.5 miles long by three-fourths of a mile wide, and the towns of Whitehall and Montague are built on its upper or eastern end, where White river enters the lake and discharges through it into Lake Michigan. The official project connects the 2 lakes by a 12-foot channel between piers and revetments 200 feet apart.

LAKE ERIE.

ASHTABULA HARBOR, OHIO.—The original project for the improvement of this harbor was adopted in 1826, at which time there was a depth of only 2 feet of water on the bar. As the result of this improvement there is now a protected channel of 17 feet between the harbor and the lake.

BLACK RIVER HARBOR, OHIO.—Black river, Ohio, is formed by two branches nearly equal in size which unite about 8 miles from the town of Lorain, where the river empties into Lake Eric. The project of improvement, commenced in 1828 and maintained from time to time as the demands of commerce called for, provides for a protected channel between the harbor and the lake 16 feet in depth.

BUFFALO HARBOR, NEW YORK.—Up to 1868 Buffalo harbor and Buffalo creek may be considered to have been synonymous terms. The earliest record of which there is any trace as to the condition of this harbor was in 1818, at which time the mouth of the creek was most of the year closed by a gravel bar which was cut out by freshets and then closed up again. From that time a number of improvements have been carried out until to day the present works consist of (1) a pier on the north side of Buffalo creek, known as the North pier; (2) a pier on the south side of the creek, known as the South or Lighthouse pier; (3) a detached breakwater, to be when finished 7,800 feet long, with a shore arm, to be when finished 4,100 feet long; (4) a pile pier, built for a sand catch and eventually to form a part of the shore arm of the breakwater; (5) a sea wall of masonry to protect the shore from the waves of the lake.

CATTARAUGUS CREEK, NEW YORK.—The improvements here, all of which were effected between the years 1826 and 1836, were simply for the improvement of the harbor, which is really the mouth of the creek.

CLEVELAND HARBOR, OHIO, is situated at the mouth of Cuyahoga river. The improvements, which are the outcome of many projects, have resulted in a protected channel of good depth, 200 feet wide, running out to the depth of 16 feet in the lake, and the formation of a harbor of refuge.

CONNEAUT HARBOR, OHIO, which lies at the mouth of the creek of the same name, has been improved by the removal of a bar which obstructed navigation and by the formation of a protected channel.

CUNNINGHAM CREEK, OHIO.—The work of improvement at this place has been of the same nature as that described for Conneaut harbor.

DUNKIRK HARBOR, NEW YORK.—The improvement of this harbor was commenced in 1827, and the original project was much the same as that of the existing improvements, which comprise the formation of an artificial harbor in front of the city.

ERIE HARBOR, PENNSYLVANIA.—The object of the improvement here has been to protect the harbor from severe winds from the east and northeast, and to obtain and maintain a channel between deep water in the harbor and the open lake 16 feet deep at low water and of good navigable width.

GRAND RIVER HARBOR (FAIRPORT), OHIO, which is officially known as Fairport, has been improved by the construction and maintenance of a protected channel 200 feet wide through a sand bar. Fairport is now the third harbor on the list of Lake Erie harbors in the amount of ore received, and owing to the increased size of vessels at present in use on the lake in this traffic an increased depth to 18 feet is stated to be necessary.

HURON RIVER AND HARBOR, OHIO.—The improvements here are precisely of the same character as those that have been effected at all other localities where the entrance to the harbor has been obstructed by a bar.

MONROE HARBOR, MICHIGAN, is situated at the extreme western end of Lake Erie, about 1.5 miles west of the mouth of Raisin river, and about 3.5 miles from the town of Monroe. The improvements were commenced here in 1835, when Raisin river was considered an important stream and Monroe a place of increasing commerce. The work done has consisted in straightening the river, making direct connection with Lake Erie through a sand peninsula by a channel 4,000 feet long and 100 feet wide.

PORT CLINTON, OHIO, is situated at the mouth of Portage river, and the improvements have consisted of the same work of making and maintaining a channel which has been so frequently described.

PORTLAND HARBOR, NEW YORK.—The improvements here were all carried out from 1836 to 1844.

ROCKY RIVER HARBOR, OHIO.—The improvements of Rocky River harbor have consisted of the formation and protection of a navigable channel from the mouth of the harbor to deep water in the lake.

ROUGE RIVER, MICHIGAN, is somewhat remarkable for the depth of the water in its lower reaches, a channel of 11 feet over the bar at its mouth being in existence, and the improvements have consisted in dredging out the stream up to its junction with Detroit river.

SANDUSKY CITY HARBOR AND SANDUSKY RIVER, OHIO.—Sandusky bay empties into or rather opens on Lake Erie about 40 miles from its western extremity. It has a natural harbor containing an area of about 22.5 miles, a depth of from 8 to 12 feet, and is protected on the north and northwest by a long, narrow peninsula, and on the northeast by Cedar point. The project of improvement has included the construction of a channel 200 feet wide and 15 feet deep through the outer bar and up to the city front. The Sandusky river empties into Sandusky bay about 14.5 miles from Cedar point, and the improvement of the river has been the dredging out of a 9-foot channel from the city of Fremont, the head of navigation, 17 miles from the mouth of the river, to a 9-foot depth in the bay.

TOLEDO HARBOR, OHIO.—The city of Toledo is situated at the mouth of Maumee river, which empties into Maumee bay about 7 miles from the deep water of Lake Erie. The improvements here have consisted mainly of the construction and maintenance of a straight channel from the mouth of the river to deep water in Lake Erie.

VERMILION RIVER, OHIO.—Vermilion river, the mouth of which constitutes Vermilion harbor, empties into Lake Erie, about 20 miles to the east of Sandusky city, and the improvements have resulted in the construction of a channel of good depth between the harbor and lake.

LAKE ONTARIO.

BLACK RIVER (SACKETTS HARBOR), NEW YORK.—The improvements here may be said to be for the mouth of this river, which empties into Sacketts harbor.

CHARLOTTE HARBOR, NEW YORK.—The improvements here have resulted in securing a navigable channel at the mouth of Genessee river.

GREAT SODUS BAY, NEW YORK.—The improvements here have resulted in securing a navigable channel of 15 feet in depth from Lake Ontario to the bay.

LITTLE SODUS BAY, NEW YORK.—The plan of improvement here has been the same as that described at Great Sodus bay.

OAK ORCHARD HARBOR, NEW YORK.—A protected channel 200 feet wide and 12 feet deep has been secured as the result of the government improvements here.

OLCOTT HARBOR, NEW YORK.—The improvements here have resulted in obtaining a channel 11 feet deep between Lake Ontario and the deep water in Eighteen Mile creek, where Olcott harbor lies.

OSWEGO HARBOR, NEW YORK.—The object of the improvements here has been to provide a basin of sufficient size and depth for the needs of commerce at the mouth of Oswego river and to secure and maintain a navigable channel into said basin and river from the lake.

PORT ONTARIO HARBOR, NEW YORK.—The improvements at this harbor, which lies at the mouth of Salmon river, were of little importance, and were all effected between the years 1836 and 1844.

PULTNEYVILLE HARBOR, NEW YORK.—The improvements here differ somewhat from those so often described in that they had for their object the formation of a harbor by protecting breakwaters.

SACKETTS HARBOR, NEW YORK.—The improvements here may be said to embrace both those which have directly affected the harbor and those which have been applied to Black river, which empties into the harbor. The harbor improvements have consisted of dredging out a large area to a good depth and the checking of drifting material, while the improvements of the river have consisted of deepening and maintaining a navigable channel.

SANDY CREEK, NEW YORK.—The appropriations made for this place were for the survey of its mouth with a view to constructing a harbor at this place. The project, however, was not carried into effect.

WILSON HARBOR, NEW YORK, is situated at the mouth of Twelve Mile creek, and the object of the improvement has been to secure a 12-foot channel between it and Lake Ontario.

ST. LAWRENCE RIVER.

GRASS RIVER, NEW YORK.—The project of the improvement here contemplated the formation of a channel from St. Lawrence river to Massena village, a distance of 7 miles, with a minimum width of 40 feet and a least depth of about 4 feet.

OGDENSBURG HARBOR, NEW YORK.—When operations were commenced at this harbor in 1868 the channel afforded depths of 5 to 12 feet only, and now there are 3 channels from deep water in St. Lawrence river to the nearest docks or wharves, in which water from 15 to 16 feet deep is afforded, and a channel from 12 to 15 feet deep has been made along the city front.

SISTER ISLANDS, NEW YORK.—This appropriation was made by the act of 1890 for the improvement of the shoal between Sister islands and the Cross-over light.

WADDINGTON HARBOR, NEW YORK.—The appropriations for the improvement of Waddington harbor closed in 1881, by which time the project of opening a channel through a bar at the head of the river which forms Waddington harbor was completed.

NIAGARA RIVER.

BLACK ROCK HARBOR, NEW YORK.—The improvements of Black Rock, which lies at the outlet of Lake Erie, were conducted between the years 1829 and 1834, and consisted of the dredging out of a navigable channel of good dimensions.

TONAWANDA HARBOR, NEW YORK.—The improvement here has embraced the formation of a navigable channel from the entrance of Niagara river at Lake Erie to the north end of Tonawanda river, the channel to be 400 feet wide and 18 feet in depth.

INCREASE AND IMPROVEMENT.

From the figures given it will have been seen that the total cost of all the harbor and river improvements up to the close of 1890 amounted to \$40,912,975, but, large as this sum is, it has been contended that the saving effected by the transportation through the lake marine more than pays back this amount to the country in a single season. The calculation made in support of this argument runs somewhat as follows:

According to the computation made by Mr. Keep the average distance over which freight was carried during 1889 was 566 miles. It will not, therefore, be going far outside the probabilities to assume that this distance was the average also for 1890, and on that assumption the total ton-mileage for 1890 was 18,849,681,384 ton-miles, while that for 1889 was 15,542,507,160.

According to the various reports of the principal transportation agencies freight rates on these waters during the year 1890 varied from 3.5 mills per ton-mile to 0.3 mill per ton-mile, the former rate being received on certain high class "package freight" and the latter being the rate on coal over a certain route. The great bulk of the "gross freight" was carried at less than 1 mill per ton-mile, and it is probable that the average rate on all freight was about 1.1 mills per ton-mile. Assuming, however, that it was as high as 1.2 mills, the cost of the total water transportation for 1890 was \$22,619,618.

An instructive lesson in comparative statistics is gathered from the fact that the total ton mileage of all the railroads in the United States for the year ending June 30, 1890, was 76,207,047,298 ton-miles, so that the ton-mileage of the Great Lakes and river St. Lawrence for the same year being, as has been seen, 18,849,681,384 ton-miles, the lake ton-mileage was 24.73 per cent of the ton-mileage of all the railroads of the United States. In

other words, it would have required 24.73 per cent of the entire railway freight equipment of the railroads in the United States to have transported by rail the cargoes carried by lake vessels in 1890, and this, it must be remembered, is based on the calculation that each of the transportation agencies was employed during the same period of time, while as a matter of fact the railroads ran for 12 months and the lake season extended over but 234 days, or less than 8 months.

REDUCTION IN FREIGHT RATES.

The question of reduction in freight rates is indeed a most interesting one, and it is especially so in the case of grain. In 1859, for instance, it cost an average of 15.75 cents to carry a bushel of corn from Chicago to Buffalo by lake. In 1871 the rate had fallen to 7.50 cents per bushel, while in 1890 it only cost 1.88 cents per bushel. In 1867 it cost an average of \$4.25 to carry a ton of iron from Escanaba to Erie, in 1870 it cost \$2.50 for the same service, while in 1890 the rate was as low at one time as \$0.55, with an average of \$0.82 per ton.

A valuable record of the most representative freight rates has been prepared by Mr. W. A. Livingstone, and will be found embodied in the subjoined tables. The titles of these tables are, generally speaking, sufficiently indicative of the matter presented, but one or two explanations are needed, which can be better given in this prefatory manner than in the form of footnotes. It should be understood, for example, that the rate of any previous date held good until the succeeding date when the new rate was made; that the ore rates in the first table include the unloading of the ore, paid by the vessel, and are the rates per gross ton, and that the averages given in all cases are the calculated averages of all the daily rates, and are not the average rates at which the freight was carried:

ORE RATES FROM THE PORTS NAMED TO LAKE ERIE PORTS.

_:	-71)

DATES	Escanaba.	Marquette.	Ashland.	· DATES.	Escanaba.	Marquette.	Asbland
	\$1.00	\$1, 25	\$1.35	August 15	40.0 5		
April 15		1. 20	1.30	August 15 October 1	\$0, 85 0, 85	\$1.00	\$1.0
May 5	0.90	1. 15	1. 25	October 15		1.00	1.
May 20.		1. 15	1. 20	November 4	1.00	1.00	1.1
May 29.	0. 85	1	1. 20	November 12		1. 10	1.1
·	0. 85	1.10	11	November 25.	1. 15		1.3
July 20	0.85	1. 10	1. 15	November 25	1. 15		1.7
July 24	0. 85	1. 10	1. 10	Average daily rates	0.890	1.072	1. 15
July 30	0. 85	1.05	1. 10	Season contract rates	1, 100	1. 250	1.35
August 9	0, 85	1.05	1.05	Normal Contract lates	1. 100	1.200	1. 30
			18	91			
May 7	\$ 0. 70	i	\$0.90	August 29	\$0.85	\$1.00	\$1.10
May 11	0. 65		0.90	September 1	0, 90	1.05	1. 15
May 20	0. 60	\$0.80	0.90	September 4	0.95	1. 10	1, 15
May 25	0. 55	0.80	0.90	September 5	1.00	1. 10	1.15
June 10	0. 55	0.80	0.80	September 22	1.05	1. 20	1.30
June 22	0. 60	0.80	0.80	September 26	1.00	1. 20	1.30
June 23	0. 65	0.80	0.80	September 29	0. 95	1. 15	1.30
June 24	0. 65	0.90	0.90	October 1	0. 95	1.10	
July 7	0.65	0.90	1.00	October 3	0. 90	1.10	1.00
July 14	0. 70	0.95	1.00	October 5	0. 85	1.00	1.20
July 20	0, 75	1.00	1.00	October 7			1.10
•		1.00	***********	October 10	0.80	1.00	1.00
July 23		1 1	1. 05	October 12	0.75	0.95	0.86
July 24	0. 85	0. 95	- 1		0. 75	0.85	
July 30		1.05	1. 10	October 14	0. 75	0.95	1.00
July 31	0. 90	1. 10	1. 20	October 22	0. 80	1.00	3 10
August 3	0. 95	1. 15	1. 25	October 30	0. 90	1. 15	1.40
August 4	1. 10	1. 25	1. 35	November 4	1. 0 0	1. 25	1,50
August 6	1.00	1. 10	1. 20	November 6	1. 20	1.30	1.50
August 8	0, 95	1. 10	1. 15	November 18	1.30	¦	
August 12	0.90	1. 10	1. 10	November 19	1.35		
August 14	0. 9 5	1. 10	1. 15	A			
August 15	1.00	1.15 .	1. 15	Average daily rates	0. 825	1.004	1.070
August 17	0. 90	1. 10	1. 15	Season contracts made on June 4	0. 650	0.900	0. 900
August 20	0.90	1. 05	1. 15				

RATE OF FREIGHT, PER BUSHEL, ON CORN FROM CHICAGO TO BUFFALO.

1890

	1890			
CENTS.		CENTS.		CENTS.
March 7	May 27	1.500	September 5	
March 14	June 5		September 12	
March 25 3. 500	June 10		September 29	
April 3 3. 250	June 27		October 14	
April 5 2.875	June 28	2.125	October 16	1.500
April 11 2.500	July 8		October 22	
April 14 2, 250	July 23	2.875	October 25	1.50
April 15 2.000	July 24	1.500	November 6	1. 25
April 25	July 25	1.750	November 18	1.50
April 26 1,500	July 30	1.500	November 19	1. 75
April 28 1, 250	July 31	1.000	November 20	1.50
April 30 1.500	August 1	1.250	November 21	
May 2 1.750	August 9		November 28	
May 3 1.500	August 16	1.250	December 3	3.00
May 20 1.250				
CENTS.		CENTS.		CENTS
April 10	August 7		October 5	
April 17	August 10	2.500		
May 2	August 11		October 26	
May 8			October 30	
May 9			October 31	
May 13	September 4		November 4	
June 29	September 10			
July 7 1. 375	September 12			
July 13	September 15		November 12	
July 14 1.750	September 25		November 19	
July 28	September 28		November 21	
July 30 2.750	September 30		November 28	
July 31 3. 000	October 3	2. 250	December 2	4.50
AVERAGI	ES OF DAILY RATES, PER BUSHEI	, FOR	6 YEARS.	
CENTS		CENTS.		CENTS
1886 3. 40	1888		1890	
1887	1889	. 2.25	1891	. 2.1

STATISTICS OF TRANSPORTATION.

RATE OF FREIGHT, PER BUSHEL, ON WHEAT FROM DULUTH TO BUFFALO.

1890

	CENTS.		CENTS.		CENTS
March 28	3.750	June 13	2, 250	September 15	2,500
April 11	3.500	June 14	2.000	September 22	2.750
April 23	3. 250	June 21	2.500	November 15	3. 000
May 7	3.000	June 24	2.750	November 22	4. 000
May 10				November 24	4. 500
May 13	3.000	! July 8	2. 750	November 26	5.000
June 3	2. 750	July 10	2.500	November 28	5. 500
June 5	2.500	July 30	2.250		
		1891	Ĺ		•
		. 1991	-		
	CENTS.	· · · · · · · · · · · · · · · · · · ·	CENTS.		
March 16		August 1		October 26	CENT8 4.000
March 18		August 5		November 2	
March 24		August 6		November 3	
April 22		September 8		November 5	
•		September 10		November 6	
May 9					
		September 15		November 7	7.000
May 16	1. 750	September 15	4,000	November 7	
May 16	1.750 1.500	September 28		November 9	7.500
May 16		September 28		November 9	
May 16		September 28		November 9	
May 9		September 28 October 6 October 8		November 9	7.500 0.000 8.500 9.250
May 16	1.750 1.500 1.250 1.750 1.500 2.000	September 28 October 6. October 8. October 10. October 19.		November 9	7, 500

RATES, PER NET TON, FOR CARRYING COAL FROM BUFFALO TO THE PORTS NAMED.

1890				1891			
DATES.	Duluth.	Milwaukes.	Chicago.	DATES.	Duluth.	Milwaukee.	Chicago
April 16	\$0.40	\$0.40	\$0.40	April 14	\$0.40	\$0.50	\$0.6
April 21	0, 35	0.50	0.50	May 11	0.40	0.60	0.6
April 30	0. 35	0.50	0,60	July 18	0.40	0.50	0.5
May 5	0.40	0.50	0.60	July 20	0.30	0.50	0.50
May 21	0. 33	0.50	0.60	August 12	0.40	0. 50	0.50
June 13	0.40	0.50	0.60	August 28	0. 30	0. 50	0. 50
September 3	0. 30	0. 50	0.60	September 2	0.30	0.40	0.40
November 3	0, 40	0.60	0.75	September 15	0. 25	0.40	0.40
November 9	0. 60	0.60	0.75	September 26	0. 25	0.50	0.50
November 11	0.75	0. 75	0. 75	October 28	0. 25	0.50	0.60
November 28	0. 75	0. 75	1.00	October 29	0. 25	0.60	0.60
				November 10	0.10	0.60	0.60
				November 18	0. 10	0.75	0.75
•				November 28.	0. 10	1.00	0.75
Average rate	0. 394	0. 521	0. 611	Average rate	0. 318	0. 545	0. 557

GENERAL RESULTS.

In the progress of this text the history of transportation on the Great Lakes and river St. Lawrence has been traced from its early beginnings to the year 1890; the comparative statistics of the decade of 1880 and 1889, inclusive, have been treated with some fullness, and much space has been devoted to a review of the industry in its positive form of a report for the period covered by the Eleventh Census. The matter can therefore well be brought to the review standpoint by a consideration of the general results of the traffic, results which have a strong social and political as well as commercial bearing. The extraordinary growth of the country is certainly one of the most striking features in the history of the United States, and it is also certain that one of the pre-eminent factors in making this growth possible has been the rapid extension of the water transportation systems of the Mississippi valley and the lacustrine system. It will show a closer parallelism between the increase of the importance of lake traffic and that of population, if one considers the growth of population in the cities found either directly on the lake shore or situated within a 50-mile zone encircling the lakes. In the whole of the United States there are 448 cities and towns having a population of 8,000 and over, and of these 448 no less than 204 are found in the 8 states to which reference has been made, while within the zone which has been outlined there lie 57 of such cities. The population of the 448 large cities of the United States was 18,284,385 in 1890, that of the 204 cities in the 8 lake states was 10,137,747, while that of the 57 cities lying within the 50 mile zone was 3,184,357, which figures, together with those showing the increase per city for the census year 1880 over that of 1890, are shown in the following table:

TABLE V.—STATEMENT SHOWING THE POPULATION IN 1880 AND 1890 OF CITIES OF 8,000 INHABITANTS AND OVER, LOCATED WITHIN A RADIUS OF 50 MILES OF THE GREAT LAKES AND ST. LAWRENCE RIVER.

LOCALITIES.	1890	1880	LOCALITIES.	1890	1880
Lake Superior	75, 344	14, 212	Lake Michigan—Continued.		
Ashland, Wisconsin	9, 956		Muskegon, Michigan	22, 702	11, 262
Duluth, Minnesota	33, 115	3, 483	Oshkosh (Lake Winnebago), Wisconsin	22, 836	15, 748
Ishpeming, Michigan	11, 197	6, 039	Racine, Wisconsin	21, 014	16, 031
Marquette, Michigan	9, 093	4, 690	Sheboygan, Wisconsin	16, 359	7, 314
Superior, Wisconsin	11, 983				
i		1	Lake Eric	822, 318	509, 142
Lakes Huron and St. Clair	337, 078	204, 477	Adrian, Michigan	8. 756	7, 849
Ann Arbor, Michigan	9, 431	8. (61	Akron, Ohio	27, 601	16, 512
Alpena, Michigan	11, 283		Ashtabula, Ohio	8, 338	4, 445
Bay city, Michigan		20, 693	Buffalo, New York	235, 664	155, 134
Detroit, Michigan		116.340	Cleveland, Ohio	261, 353	160, 146
Flint, Michigan	9, 803	8, 409	Dunkirk, New York	9, 416	7, 248
Port Huron. Michigan	13, 543	8, 883	Eric, Pennsylvania	40, 634	27, 737
Saginaw, Michigan	46, 322	29. 541	Findlay, Ohio.	18, 553	
West Bay city, Michigan	12, 981	6,397	Jamestown (Lake Chautauqua), New York	16, 038	4, 633 9, 3 5 7
west bay city, micingan	12, 561	0,081	Mansfield, Ohio	13, 473	9, 357 9, 859
Lake Michigan	1, 622, 462	799, 945	Meadville, Pennsylvania	9, 520	8, 860
Lake arrentgan	1, 022, 402	130, 540	Sandusky, Ohio	18, 471	15, 828
Appleton, Wisconsin	11,860	8,005	Titusville, Pennsylvania	9, 046	8, 073
Aurora, Illinois	19, 688	11, 873	Toledo, Ohio	81, 434	50, 137
Chicago, Illinois	1, 099. 850	503. 185	Tiflin, Ohio	10, 801	50, 137 7, 879
Elgin, Illinois	17, 823	8, 787	Youngstown, Ohio	33, 220	
Fond da Lac (Lake Winnebago), Wisconsin	12,024	13, 094	l. Toungarown, Omo	33, 220	13, 435
Green Bay. Wisconsin	9, 0G9	7, 464	Lake Ontario and St. Lawrence river	327, 155	920 CEC
Grand Rapids, Michigan.	60, 278	32, 016	Lake Oftario and St. Lawrence river	327, 135	230, 952
Joliet. Illinois	23, 264	11, 657	Auburn. New York	25, 858	21, 924
Iron Mountain, Michigan	8, 509	1	Lockport, New York	16, 038	13, 5 22
Kankakee, Illinois	9. 025	5, 651	Ogdensburg, New York	11,662	10, 341
Kalamazoo, Michigan	17, 853	11, 937	Oswego, New York	21, 842	21, 110
Manistee, Michigan	12, 812	6, 930	Rome, New York	14, 991	12, 194
Marinette, Wisconsin	11, 523	2, 750	Rochester, New York	133, 896	89, 366
Menominee, Michigan	10, 630	3, 288	Syracuse, New York	88, 143	51,792
Michigan, Indiana	10, 776	7, 366	Watertown, New York	14, 725	10, 697
Milwankee, Wisconsin	204, 468	115, 587	·	1	

Remarkable as has been the increase of this urban population, generally considered, the reader can not fail to the extraordinary fact that 3 of these large cities, Ashland, Superior, and Iron Mountain, have sprung into sistence during the decade 1880-1890, while Duluth's growth has been from so small a beginning to so large a result that it can almost be considered in the same category. This practical creation of 4 populous cities is mainly if not entirely due to the development in the production of iron ore in the Lake Superior and Lake Michigan districts. In this connection the figures in the following paragraph, which have been compiled from official returns, are at once pertinent and instructive.

Eric, Lake Erie

Port Colborne, Lake Erie (Canada)...

Buffalo, Lake Erie.....

In 1889 there were 592 iron-ore producing mines in the United States which reported to the bureau of statistics, of which 89 were in the Lake Superior district. The product of the 592 mines was 14,518,041 long tons of ore, which, at an average value of \$2.30 per ton, means a total value of \$33,351,978. The product of the Lake Superior district amounted to 6,693,568 tons, valued at \$16,641,429. The port of Escanaba does not appear in the preceding list of cities having a population of over 8,000, but it undoubtedly belongs to the list of those cities whose growth is due almost entirely to lake traffic in iron ore. From this port 3,364,067 tons of iron ore were shipped in 1889 and 4,171,210 tons in 1890. During the same year Bilbao, in Spain, shipped 4,272,918 tons, but as Bilbao is an open port for the whole year, its shipments were at the rate of 356,077 tons per month, while the lake port, being open but 10 months in the year, shipped at the rate of 417,121 tons per month, making Escanaba, therefore, the greatest ore port in the world.

LAKE LANDINGS AND DISTANCES.

As in the case of the report on the rivers of the Mississippi valley, this text can not be brought to a better conclusion than by giving a list of the principal trading points on the Great Lakes and St. Lawrence river, with the distances from port to port:

LAKE AND RIVER LANDINGS BETWEEN OGDENSBURG AND DULUTH (DISTANCES FROM OGDENSBURG).

LAKE AND RIVER DANDIN	GO D	EIWEEN OGDENSBURG AND DUEC	111 (1	DISTANCES FROM OGDENSBURG).	
	MILES.	!	MILES.	1	MILES.
Cape Vincent, Lake Ontario	68	Sand Beach, Lake Huron	615	Marquette, Lake Superior	997
Kingston, Lake Ontario (Canada)	69	Goderich, Lake Huron (Canada)	616	Green Bay, Lake Michigan	
Oswego, Lake Ontario	115	Oscoda, Lake Huron	666	Sheboygan, Lake Michigan	1.017
Fair Haven, Lake Ontario	134	Tawas, Lake Huron	672	Copper Harbor, Lake Superior	
Charlotte, Lake Ontario	158	Saginaw river, Lake Huron	700	Muskegon, Lake Michigan	
Toronto, Lake Ontario (Canada)	222	Alpena, Lake Huron	709	Grand Haven, Lake Michigan	1 015
Port Dalhousie, Lake Ontario (Can-		Cheboygan, Lake Huron	787	L'Anse, Lake Superior	
ada)	330	Mackinac, Lake Huron	794	Houghton, Lake Superior	
Port Colborne, Lake Erie (Canada)	256	Owen sound, Lake Huron (Canada).	800	Milwaukee, Lake Michigan	1,000
Buffalo, Lake Erie	276	Collingwood, Lake Huron (Canada).	818	St. Joseph, Lake Michigan	
Erie, Lake Erie	321	Midland, Lake Huron (Canada)	827	Ontonagou, Lake Superior	
	358	Sault Ste. Marie, Lake Superior	838	Chicago Lake Wichigan	1, 100
Ashtabula, Lake Erie				Chicago, Lake Michigan	
Cleveland, Lake Erie	412	Traverse, Lake Michigan	897	Port Arthur, Lake Superior (Canada)	
Sandusky, Lake Erie	458	Escanaba, Lake Michigan	935	Bayfield, Lake Superior	
Toledo, Lake Erie	491	Manistee, Lake Michigan	950	Ashland, Lake Superior	
Detroit, Detroit river (Lake St.Clair).	493	Ludington, Lake Michigan	978	Duluth, Lake Superior	1, 235
Port Huron, St. Clair river (Lake		Manitowoc, Lake Michigan	993		
Huron)	553				
LAKE AND RIVER LANDI Port Colborne, Lake Erie (Canada)	NGS 1	BETWEEN BUFFALO AND OGDENSI Charlotte, Lake Ontario	BURG 127	(DISTANCES FROM BUFFALO). Kingston, Lake Ontario (Canada)	907
•	20 77	Fair Haven, Lake Ontario		, ,	207
Toronto, Lake Ontario (Canada)	"	,	180	Cape Vincent, Lake Ontario	208
Port Dalhousie, Lake Ontario (Can-	97	Oswego, Lake Ontario	190	Ogdensburg, St. Lawrence river	276
ada)	91	'			
LAKĘ AND RIVER LAN	DING	S BETWEEN BUFFALO AND DULU	TH (D	ISTANCES FROM BUFFALO).	
Erie, Lake Erie	80	Alpena, Lake Huron	471	Sheboygan, Lake Michigan	779
Ashtabula, Lake Eric	116	Cheboygan, Lake Huron	549	Copper Harbor, Lake Superior	789
Cleveland, Lake Erio	174	Mackinac, Lake Huron	556	Muskegon, Lake Michigan	805
Put in Bay, Lake Erie	215	Owen sound, Lake Huron (Canada)	562	Grand Haven, Lake Michigan	807
Sundusky, Lake Erie	217	Collingwood, Lake Huron (Canada).	580	L'Anse, Lake Superior	816
Toledo, Lake Erie	252	Midland, Lake Huron (Canada)	589	Houghton, Lake Superior	820
Detroit, Detroit river (Lake St. Clair)	255	Sault Ste. Marie, Lake Superior	600	Milwaukee, Lake Michigan	824
Port Huron, St. Clair river (Lake	200	Traverse, Lake Michigan	658		864
•	315	, ,		St. Joseph, Lake Michigan	870
Huron)		Escanaba, Lake Michigan	697	Port Arthur, Lake Superior (Canada)	
Sand Beach, Lake Huron	377	,	712	Ontonagon, Lake Superior	871
Goderich, Lake Huron (Canada)	378	Ludington, Lake Michigan	7 3 9	Chicago, Lake Michigan	889
Oscoda, Lake Huron	428	Manitowoc, Lake Michigan	755	Bayfield, Lake Superior	935
Tawas, Lake Huron	434	Marquette, Lake Superior	759	Ashland, Lake Superior	948
Saginaw river, Lake Huron	463	Green Bay, Lake Michigan	764	Duluth, Lake Superior	997
LAKE AND RIVER LANDING	s вет	TWEEN CLEVELAND AND OGDENS	BURG	(DISTANCES FROM CLEVELAND).	
Ashtabala, Lake Eric	58	Port Dalhousie; Lake Ontario (Canada)	, 102	Oswago Iska Ontorio	326
N' T I D'	00		. 190		040

99 | Toronto, Lake Ontario (Canada).....

156 Charlotte, Lake Ontario.....

174 | Fair Haven, Lake Ontario......

212

273

313

Kingston, Lake Ontario (Canada) ...

Cape Vincent, Lake Ontario.....

316 Ogdensburg, St. Lawrence river.....

LAKE AND RIVER LANDINGS BETWEEN CLEVELAND AND DULUTH (DISTANCES FROM CLEVELAND).

•	MILES.	1	MILES.		ILES.
Sandusky, Lake Erie	56	Mackinac, Lake Huron	406	Copper Harbor, Lake Superior	639
Put in Bay, Lake Erie	64	Owen sound, Lake Huron (Canada) .	412	Muskegon, Lake Michigan	655
Toledo, Lake Erie	100	Collingwood, Lake Huron (Canada).	430	Grand Haven, Lake Michigan	657
Detroit, Detroit river (Lake St. Clair)	105	Midland, Lake Huron (Canada)	439	L'Anse, Lake Superior	666
Port Huron, St. Clair river (Lake		Sault Ste. Marie, Lake Superior	450	Houghton, Lake Superior	670
Huron)	165	Traverse, Lake Michigan	509	Milwaukee, Lake Michigan	674
Sand Beach, Lake Huron	227	Escanaba, Lake Michigan	547	St. Joseph, Lake Michigan	714
Goderich, Lake Huron (Canada)	228	Manistee, Lake Michigan	562	Port Arthur, Lake Superior (Canada)	720
Oscoda, Lake Huron	278	Ludington, Lake Michigan	590	Ontonagon, Lake Superior	721
Tawas, Lake Huron	284	Manitowoc, Lake Michigan	605	Chicago, Lake Michigan	739
Saginaw river, Lake Huron	312	Marquette, Lake Superior	609	Bayfield, Lake Superior	785
Alpena, Lake Huron	321	Green Bay, Lake Michigan	614	Ashland, Lake Superior	798
Cheboygan, Lake Huron	399	Sheboygan, Lake Michigan	629	Duluth, Lake Superior	847
		, 2 ,	-	2-11-12, 2-12-0 O. Politorio	•••
LAKE AND RIVER LANDI	INGS I	BETWEEN DETROIT AND OGDENSI	BURG	(DISTANCES FROM DETROIT).	
Put in Bay, Lake Erie	50	Port Colborne, Lake Erie (Canada)	237	Fair Haven, Lake Ontario	397
Toledo, Lake Erie	57	Buffalo, Lake Erie	255	Oswego, Lake Ontario	407
Sandusky, Lake Erie	68	Port Dalhousie, Lake Ontario (Canada)	264	Kingston, Lake Ontario (Canada)	424
Cleveland, Lake Erie	105	Toronto, Lake Ontario (Canada)	294	Cape Vincent, Lake Ontario	425
Ashtabula, Lake Erie	147	Charlotte, Lake Ontario	354	Ogdensburg, St. Lawrence river	493
Erie, Lake Erie	185			,-8	
					
LAKE AND RIVER LAN	NDING	S BETWEEN DETROIT AND DULU	TH (D	ISTANCES FROM DETROIT).	
Port Huron, St. Clair river (Lake	1	Midland, Lake Huron (Canada)	334	Grand Haven, Lake Michigan	5 52
Huron)	60	Sault Ste. Marie, Lake Superior	345	L'Ause, Lake Superior	561
Sand Beach, Lake Huron	122	Traverse, Lake Michigan	404	Houghton, Lake Superior	565
Goderich, Lake Huron (Canada)	123	Escanaba, Lake Michigan	442	Milwaukee, Lake Michigan	569
Oscoda, Lake Huron	173	Manistee, Lake Michigan	457	St. Joseph, Lake Michigan	609
Tawas, Lake Huron	179	Ludington, Lake Michigan	485	Port Arthur, Lake Superior (Canada)	615
Saginaw river, Lake Huron	207	Manitowoc, Lake Michigan	500	Ontonagon, Lake Superior	616
Alpena, Lake Huron	216	Marquette, Lake Superior	504	Chicago, Lake Michigan	634
Cheboygan, Lake Huron	294	Green Bay, Lake Michigan	509	Bayfield, Lake Superior	680
Mackinac, Lake Huron	303	Sheboygan, Lake Michigan	524	Ashland, Lake Superior	693
Owen sound, Lake Huron (Canada).	307	Copper Harbor, Lake Superior	534	Duluth, Lake Superior	742
Collingwood, Lake Huron (Canada).	325	Muskegon, Lake Michigan	550	Zuidelly Zuide Superior	112
• · · · · · · · · · · · · · · · · · · ·					
LAKE AND RIVER LANDING	s bet	TWEEN CHEBOYGAN AND OGDENS	BURG	(DISTANCES FROM CHEBOYGAN).	
Alpena, Lake Huron	100	Midland, Lake Huron (Canada)	239	Port Dalhousie, Lake Ontario (Can-	
Oscoda, Lake Huron	126	Detroit, Detroit river (Lake St. Clair).	294	ada)	558
Tawas, Lake Huron	145	Put in Bay, Lake Erie	344	Toronto, Lake Ontario (Canada)	588
Sand Beach, Lake Huron	173	Toledo, Lake Erie	351	Charlotte, Lake Ontario	648
Saginaw river, Lake Huron	190	Sandusky, Lake Erie	362	Fair Haven, Lake Ontario	691
Goderich, Lake Huron (Canada)	200	Cleveland, Lake Erie	399	Oswego, Lake Ontario.	701
Owen sound, Lake Huron (Canada).	212	Ashtabula, Lake Erie	441	Kingston, Lake Ontario (Canada)	718
Collingwood, Lake Huron (Canada).	230	Erie, Lake Erie	479	Cape Vincent, Lake Ontario	719
Port Huron, St. Clair river (Lake	200	Port Colborne, Lake Erie (Canada)	539	Ogdensburg, St. Lawrence river	784
Huron)	234	Buffalo, Lake Erie	549	oguenosurg, St. Lawrence IIvei	104
 ,	-01		0.0		
LAKE AND RIVER LANDI	NGS E	BETWEEN CHEBOYGAN AND DULU	TH (D	ISTANCES FROM CHEBOYGAN).	
Mackinac, Lake Huron	17	Sheboygan, Lake Michigan	232	St. Joseph, Lake Michigan	317
Sault Ste. Marie, Lake Superior	93	Marquette, Lake Superior	252	Chicago, Lake Michigan	342
Traverse, Lake Michigan	112	Muskegon, Lake Michigan	258	Port Arthur, Lake Superior (Canada)	363
Escanaba, Lake Michigan	150	Grand Haven, Lake Michigan	260	Ontonagon, Lake Superior	364
Manistee, Lake Michigan	165	Milwaukee, Lake Michigan	277	Bayfield, Lake Superior	428
Ludington, Lake Michigan	193	Copper Harbor, Lake Superior	282	Ashland, Lake Superior	441
Manitowoc, Lake Michigan	208	L'Anse, Lake Superior	309	Duluth, Lake Superior	490
Green Bay, Lake Michigan	217	i	313	wanted assess captible	-100
÷,		,			

LAKE AND RIVER LANDINGS BETWEEN GRAND HAVEN AND OGDENSBURG (DISTANCES FROM GRAND HAVEN).

	MILES.		MILES.		MILES.
Muskegon, Lake Michigan	20	Saginaw river, Lake Huron	448	Ashtabula, Lake Erie	699
Ludington, Lake Michigan	68	Goderich, Lake Huron (Canada)	458	Erie, Lake Erie	737
Manistee, Lake Michigan	93	Owen sound, Lake Huron (Canada).	469	Port Colborne, Lake Erie (Canada)	789
Green Bay, Lake Michigan	184	Collingwood, Lake Huron (Canada).	487	Buffalo, Lake Erie	807
Escanaba, Lake Michigan	193	Port Huron, St. Clair river (Lake		Port Dalhousie, Lake Ontario (Canada)	816
Traverse, Lake Michigan	210.	Huron)	492	Toronto, Lake Ontario (Canada)	846
Mackinac, Lake Huron	246	Midland, Lake Huron (Canada)	496	Charlotte, Lake Ontario	906
Sheboygan, Lake Michigan	260	Detroit, Detroit river (Lake St. Clair)	552	Fair Haven, Lake Ontario	949
Alpena, Lake Huron	358	Put in Bay, Lake Erie	602	Oswego, Lake Ontario	959
Oscoda, Lake Huron	384 403	Sandusky, Lake Erie	609 620	Kingston, Lake Ontario (Canada) Cape Vincent, Lake Ontario	976 977
Sand Beach, Lake Huron	431	Cleveland, Lake Erie	657	Ogdensburg, St. Lawrence river	
Cana Board, Bano Maron	.02	, 010,010,101, 110,101	50.	ogacinous, sur naviones inver-	2,010
LAKE AND RIVER LANDING	S BET	TWEEN GRAND HAVEN AND DULU	TH (D	ISTANCES FROM GRAND HAVEN).	
St. Joseph, Lake Michigan	68	Sault Ste. Marie, Lake Superior	339	Port Arthur, Lake Superior (Canada)	609
Milwaukee, Lake Michigan	85	Marquette, Lake Superior	498	Ontonagon, Lake Superior	610
Sheboygan, Lake Michigan	88	Copper Harbor, Lake Superior	528	Bayfield, Lake Superior	674
Manitowoc, Lake Michigan	103	L'Anse, Lake Superior	555	Ashland, Lake Superior	687
Chicago, Lake Michigan	109	Houghton, Lake Superior	55 9	Duluth, Lake Superior	736
LAKE AND RIVER LAND	INGS	BETWEEN CHICAGO AND OGDENS	BURG	(DISTANCES FROM CHICAGO).	
St. Joseph, Lake Michigan	61	Oscoda Lake Huron	466	Claveland Lake Eric	720
Milwaukee, Lake Michigan	84	Oscoda, Lake Huron	485	Cleveland, Lake Erie	739 781
Grand Haven, Lake Michigan	109	Sand Beach, Lake Huron	513	Erie, Lake Erie	81 9
Muskegon, Lake Michigan	120	Saginaw river, Lake Huron	530	Port Colborne, Lake Erie (Canada)	871
Sheboygan, Lake Michigan	128	Goderich, Lake Huron (Canada)	540	Buffalo, Lake Erie	889
Manitowoc, Lake Michigan	156	Owen sound, Lake Huron (Canada)	552	Port Dalhousie, Lake Ontario (Canada)	898
Ludington, Lake Michigan	157	Collingwood, Lake Huron (Canada)	570	Toronto, Lake Ontario (Canada)	928
Manistee, Lake Michigan	182	Port Huron, St. Clair river (Lake		Charlotte, Lake Ontario	988
Green Bay, Lake Michigan	a255	Huron	574	Fair Haven, Lake Ontario	1, 031
Escanaba, Lake Michigan	280	Midland, Lake Huron (Canada)	579	Oswego, Lake Ontario	1, 041
Traverse, Lake Michigan	298	Detroit, Detroit river (Lake St. Clair)	634	Kingston, Lake Ontario (Canada)	
Mackinac, Lake Huron	329	Put in Bay, Lake Erie	684	Cape Vincent, Lake Ontario	
Cheboygan, Lake Huron	342	Toledo, Lake Erie	691	Ogdensburg, St. Lawrence river	1, 127
Alpena, Lake Huron	440	Sandusky, Lake Erie	702		
LAKE AND RIVER LAN	NDING	S BETWEEN CHICAGO AND DULU	TH (D	ISTANCES FROM CHICAGO).	
Sault Ste. Marie, Lake Superior	422	Houghton, Lake Superior	642	Bayfield, Lake Superior	b757
Marquette, Lake Superior	581	Port Arthur, Lake Superior (Canada)	692	Ashland, Lake Superior	b 770
Copper Harbor, Lake Superior	611	Ontonagon, Lake Superior	693	Duluth, Lake Superior	819
L'Anse, Lake Superior	638				
LAKE AND RIVER LANDINGS	BET	WEEN MILWAUKEE AND OGDENSI	BURG	(DISTANCES FROM MILWAUKEE).	
				,	
Sheboygan, Lake Michigan	52 77	Tawas, Lake Huron	420	Cleveland, Lake Erie	674 716
Manitowoc, Lake Michigan Grand Haven, Lake Michigan	77 : 85 :	Sand Beach, Lake Huron Saginaw river, Lake Huron	448 465	Ashtabula, Lake Erie Erie, Lake Erie	716 754
Muskegon, Lake Michigan	85	Goderich, Lake Huron (Canada)	475	Port Colborne, Lake Erie (Canada)	806
St. Joseph, Lake Michigan	97	Owen sound, Lake Huron (Canada)	489	Buffalo, Lake Erie	824
Ludington, Lake Michigan	98	Collingwood, Lake Huron (Canada)	507	Port Dalhousie, Lake Ontario (Canada)	833
Manistee, Lake Michigan	117	Port Huron, St. Clair river (Lake		Toronto, Lake Ontario (Canada)	863
Green Bay, Lake Michigan	a178	Huron)	509	Charlotte, Lake Ontario	923
Escanaba, Lake Michigan	202	Midland, Lake Huron (Canada)	516	Fair Haven, Lake Ontario	966
Traverse, Lake Michigan	222	Detroit, Detroit river (Lake St. Clair)	569	Oswego, Lake Ontario	976
Mackinac, Lake Huron	266	Put in Bay, Lake Erie	619	Kingston, Lake Ontario (Canada)	993
Cheboygan, Lake Huron	277	Toledo, Lake Erie	626	Cape Vincent, Lake Ontario	994
Alpena, Lake Huron	375	Sandusky, Lake Erie	637	Ogdensburg, St. Lawrence river	1, 062
Oscoda, Lake Huron	401				
LAKE AND RIVER LANDIN	NGS B	ETWEEN MILWAUKEE AND DULU	TH (D	ISTANCES FROM MILWAUKEE).	
Chicago, Lake Michigan	84	L'Anse, Lake Superior	575	Bayfield, Lake Superior	694
Sault Ste. Marie, Lake Superior	359	Houghton, Lake Superior	579	Ashland, Lake Superior	707
Marquette, Lake Superior	518	Port Arthur, Lake Superior (Canada)	629	Duluth, Lake Superior	756
Copper Harbor, Lake Superior	548	Ontonagon, Lake Superior	630		
a Through Sturge	on Bay	ranal.	b	Through Portage canal.	

LAKE AND RIVER LANDINGS BETWEEN MARQUETTE AND OGDENSBURG (DISTANCES FROM MARQUETTE).

	MILES.		MILES.		MILES.
Sault Ste. Marie, Lake Superior	159	Collingwood, Lake Huron (Canada).	427	Chicago, Lake Michigan	581
Cheboygan, Lake Huron	252	Midland, Lake Huron (Canada)	436	Cleveland, Lake Erie	609 .
Mackinac, Lake Huron	259	Port Huron, St. Clair river (Lake		Ashtabula, Lake Eric	651
Alpena, Lake Huron	309	Huron)	144	Erie, Lake Erie	689
Oscoda, Lake Huron	336	Manitowoc, Lake Michigan	448	Port Colborne, Lake Erie (Canada)	741
Traverse Lake Michigan	352	Green Bay, Lake Michigan	453	Buffalo, Lake Erie	759
Tawas, Lake Huron	359	Sheboygan, Lake Michigan	468	Port Dalhousie, Lake Ontario (Canada)	768
Sand Beach, Lake Huron	386	Grand Haven, Lake Michigan	498	Toronto, Lake Ontario (Canada)	798
Escanaba, Lake Michigan	392	Detroit, Detroit river (Lake St. Clair)	504	Charlotte, Lake Ontario	858
Saginaw river, Lake Huron	395	Milwaukee, Lake Michigan	518	Fair Haven, Lake Outerio	901
Manistee, Lake Michigan	402	Put in Bay, Lake Erie	554	Oswego, Lake Ontario	911
Muskegon, Lake Michigan	405	St. Joseph, Lake Michigan	556	Kingston, Lake Ontario (Canada)	928
Owen sound, Lake Huron (Canada)	409	Toledo, Lake Erie	561	Cape Vincent, Lake Ontario	929
Goderich, Lake Huron (Canada)	412	Sandusky, Lake Erie	572	Ogdensburg, St. Lawrence river	997
Ludington, Lake Michigan	427	• /	- !	· ·	
		•			
TAKE AND DIVED LAND!	MAG B	ETWEEN MARQUETTE AND DULUT	ru (n	ISTANCES FROM MAROHETTE)	
LAKE AND RIVER EANDI.	MGG D.	EIWEEN MARQUEITE AND DOLU	in (D	ISTANCES FROM MARQUETTE).	
Copper Harbor, Lake Superior	78	Ontonagon, Lake Superior	141	Ashland, Lake Superior	a219
L'Anse, Lake Superior	79	Port Arthur, Lake Superior (Canada)	172	Duluth, Lake Superior	a266
Houghton, Lake Superior	a82	Bayfield, Lake Superior	a207	, *	
• •		•			
TAKE AND DIVED TAND	INCE	BETWEEN DULUTH AND OGDENSE	ממיוס	(DISTANCES EDON DITLITTE)	
DAKE AND RIVER DAND	INUS .	DEIWEEN DULUIN AND OGDENSE	CAG	(DISTANCES FROM DULUTH).	
Bayfield, Lake Superior	80	Manistee, Lake Michigan	640	Toledo, Lake Erie	799
Ashland, Lake Superior	94	Muskegon, Lake Michigan	643	Sandusky, Lake Erie	810
Ontonagon, Lake Superior	138	Owen sound, Lake Huron (Canada)	647	Chicago, Lake Michigan	819
Houghton, Lake Superior	a178	Goderich, Lake Huron (Canada)	650	Cleveland, Lake Erie	847
Copper Harbor, Lake Superior	206	Collingwood, Lake Huron (Canada).	655	Ashtabula, Lake Erie	889
L'Anse, Lake Superior	a209	Ludington, Lake Michigan	665	Erie, Lake Erie	927
Marquette, Lake Superior	a2 6 6	Midland, Lake Huron (Canada)	674	Port Colborne, Lake Erie (Canada)	979
Sault Ste. Marie, Lake Superior	397	Port Huron, St. Clair river (Lake	0.2	Buffalo, Løke Erie	997
Cheboygan, Lake Huron	490	Huron)	682	Port Dalhousie, Lake Ontario (Canada)	
Mackinac, Lake Huron	497	Manitowoc, Lake Michigan	686	Toronto, Lake Ontario (Canada)	
Alpena, Lake Huron	547	Green Bay, Lake Michigan	691	Charlotte, Lake Ontario	
Oscoda, Lake Huron	. 574	Sheboygan, Lake Michigan	706	Fair Haven, Lake Ontario	•
Traverse, Lake Michigan	590	Grand Haven, Lake Michigan	736	Oswego, Lake Ontario	•
Tawas, Lake Huron	597	Detroit, Detroit river (Lake St. Clair)	742	Kingston, Lake Ontario (Canada)	
Sand Beach, Lake Huron	624	Milwaukee, Lake Michigan	756	Cape Vincent, Lake Ontario	
Escanaba, Lake Michigan	630	Put in Bay, Lake Erie	792	Ogdensburg, St. Lawrence river	
Saginaw river, Lake Huron	633	St. Joseph, Lake Michigan	794		_,
		a Through Portage canal.		ı	

STATISTICAL TABLES.

EQUIPMENT, OCCUPATION, AND CONSTRUCTION.

TABLE 1.—EQUIPMENT OF FLEETS IN GENERAL—NUMBER, TONNAGE, AND VALUE OF ALL STEAMERS, SAILING VESSELS, AND UNRIGGED CRAFT FORMING THE LAKE FLEETS AND CREDITED TO THE RESPECTIVE PORTS OF HAIL, WITH TOTALS FOR EACH LAKE AND ST. LAWRENCE RIVER.

	тот	TAL OF ALI	L CRAFT.	li	STEAME	18.	8.	AILING VE	SSELS.	U	KRIGGED CI	RAPT.
PORTS.	Num- ber.	Gross tonnage	Valuation.	Num- ber.	Gross tonnage.	Valuation.	Num- ber.	Gross tonnage.	Valuation.	Num- ber.	Gross tonnage.	Valua- tion.
Total	2,737	920, 294	\$48, 580, 174	1,467	595, 813	\$40, 868, 821	962	185, 081	\$4, 238, 850	308	139, 400	\$3, 472, 50
ake Superior	. 167	39, 653	2, 763, 500	126	29, 257	2, 344, 300	31	2, 784	74, 200	10	7, 612	345, 0
Ashland, Wisconsin	1 3	73 1, 319		1 1	73 35	5,000				2	1 994	
Bayfield, Wisconsin	39	291 4, 386	6, 000 338, 300	35	1, 614	161, 800	1 1	291 88	6, 000 1, 500	<u>2</u> 3	1, 284 2, 684	38, 0 175, 0
Marquette, Michigan	- 111	20,759		81	18,028	1, 461, 500 79, 000	29	2, 405	66, 700	1 2	326	4,0
Péquaming, Michigan Republic, Michigan St. Marys Falls, Michigan Superior, Wisconsin	4 4 2 2	2, 082 5, 314 477 4, 952	239, 000 25, 000	2 2 2 2 2	1,069 3,009 477 4,952	156, 000 25, 000 450, 000				2	1, 013 2, 305	45, 0 83, 6
akes Huron and St. Clair	726	262, 833	13, 107, 650	340	152, 463	10, 521, 600	213	34, 119	812,050	173	76, 251	1, 774, 0
Algonac, Michigan Alpena, Michigan Bay city, Michigan	.: 9	2, 345 4, 984 31, 176	166, 400	11	1, 117 7, 286	100,000		3, 625	127, 400	6 8 88	2, 345 3, 867 20, 265	46, 0 66, 4
Caseville, Michigan	. 56 . 1 . 2	298 83	4,000	2	83	7,500	7	298	4,000		20, 203	571, 2
Detroit, MichiganEast China, Michigan	. 275	129, 768	7, 547, 800	144	88, 906	6, 594, 000	87	19, 475	416, 500	44 2	21, 387	537, 2
East Saginaw, Michigan Marine, Michigan Mount Clemens, Michigan	. 30	1, 449 13, 261 9, 875 504	419, 600 230, 800	6 1	3, 999 1, 119	251, 500 50, 000	2 5	776 2,038	14,000 40,500	22 17 2	1, 449 8, 486 6, 718 504	67, 00 154, 10 140, 30 1, 50
New Baltimore, Michigan Oscoda, Michigan	1 2	1, 289		2	147	11,000	1	591	12, 000	2	608	5.0
Port Huron, Michigan Saginaw, Michigan St. Clair, Michigan	293 10 12	61, 482 2, 829 3, 343	88, 500	165 4	48, 042 1, 004 760	2, 953, 100 64, 000 43, 000	106 1 3	6, 381 252 683	184, 150 500 13, 000	2 22 5 5	7, 059 1, 573 1, 900	116, 7 24, 0 44, 5
ake Michigan	. 1,003	196, 216	9, 114, 400	453	101, 800	7. 227, 600	500	76, 577	1, 485, 300	50	17, 839	401, 50
Benton Harbor, Michigan Charlevoix, Michigan Chicago, Illinois Escanaba, Michigan Fort Howard, Wisconsin	339	699 488 71, 260 1, 615 222	3, 088, 350 52, 000	2 2 156 1	655 83 28, 810 448	38, 500 7, 000 2, 257, 800 25, 000	1 4 163 4 2	44 405 35, 940 1, 167 222	1, 000 5, 800 712, 550 27, 000 5, 500	20		118.00
Frankfort, MichiganGrand Haven, Michigan	. 1	22, 308	1,000	147	7 16, 861	1, 000 1, 447, 300	77	4, 829	123, 350	·····i	618	38.00
Green Bay, Wisconsin	. 10	3, 300 220 7, 378	115, 000 3, 000	4	995	59, 000 304, 000	3 2 12	955 220 3, 145	27, 500 3, 000 52, 900	3	1, 350	28.50 2.00
Kenosha, Wisconsin		160		:	1,001	304,000	12	160	3,000			
Ludington, Michigan Manistee, Michigan Manitowoc, Wisconsin	4	752 2, 732	54,000	ļi	530	25.000	9	752 1,890	12, 000 25, 000 34, 600	1	312	4,0
Menominee, Michigan	. 1	1.775 277					15	1,775		1	277	2,5
Milwaukee, Wisconsin Montague, Michigan	. 2	61, 694 217	4,000	123	46, 405	2, 908, 500	130 2	13, 043 217	247, 500 4, 000	6	2, 246	49,0
Muskegon, Michigan Northport, Michigan Onekama, Michigan	. 1		7,000	1 2	504 63	24, 000 7, 000	15	2,584	39, 100	1	146	3.5
Pentwater, Michigan	. 2	260	4, 500				2	260	4,500		İ	
Peshtigo, Wisconsin Petoskey, Michigan	. 1	1,704	12,000	. 1	123			2, 883	47, 400	3	1,704	52.5 98.0
Racine, Wisconsin	. 26	6, 932 81					15	81	1,500		4,049	
St. Joseph, Michigan	. 3	164 647	33, 500	3			2	164	!			
Sheboygan, Wisconsin	. 25	4, 115 374						3, 914	76, 9 8 0 5, 100	1	201	3,6
Spring Lake, Michigan Sturgeon Bay, Wisconsin	. 2 . 2	345 550	5, 000	·	. ·			345 320	8, 000 2, 500	1	230	2.5
Suttons Bay, Michigan Traverse, Michigan	. 1	232 336		·····i	336	20,000	1	232	3, 000		¦ 	
Troy, Wisconsin	. 1	301 1, 296		2	1, 296	58, 000	1	301	7, 000			
Waukesha, Wisconsin	. 1	48	600	·			. 1	48 307	600 4,000			

EQUIPMENT, OCCUPATION, AND CONSTRUCTION—Continued.

TABLE 1.-EQUIPMENT OF FLEETS IN GENERAL, ETC.-Continued.

	тот	AL OF ALI	CRAFT.	1	STRAME	RS.	s.	AILING VES	SELS.	UN	RIGGED CR	AFT.
PORTS.	Num- ber.	Gross tonnage.	Valuation.	Num- ber.	Gross tonnage.	Valuation.	Num- ber.	Gross tonnage.	Valuation.	Num- ber.	Gross tonnage.	
Lake Erie	667	392, 903	\$22, 163, 824	449	296, 034	\$19, 583, 124	151	61, 097	\$1,647,7 00	67	25, 772	\$933,000
Ashtabula, Ohio	4	175	27, 000	4	175	27,000						
Avon, Ohio	204	264 128, 860	5, 000 8, 235, 124	167	109, 575	7, 760, 124	17	264 10, 376	5,000 290,500	20	8, 909	104 50
Cleveland, Ohio Dunkirk, New York	219	163, 227 522	8, 802, 800 29, 000	133	119, 969 498	7, 579, 500 27, 500	67	30, 956 24	871, 300 1, 500	19		184, 50 352, 00
Erie, PennsylvaniaFairport, OhioFremont, Ohio	5	29, 454 316 20	1, 759, 900 17, 000 1, 800	33 3 2	28, 142 81 20	1, 723, 000 13, 500 1, 800	3 2	487 235	11.900 3,500	1	825	25, 00
Gratwick, Ohio	1	538	28,000	d	20	1,800				1	538	28, 00
Huron, Ohio	12	5, 091	274, 700	, 8	3, 532	226, 000	. 3	649	13, 700	1	910	35, 00
Lorain, Ohio	6	8, 621 6, 824	321, 500 323, 500	2	1, 802 2, 988	157, 500 200, 000	13 3	5, 442 1, 989	119, 500 58, 500	2	1, 377 1, 847	44, 50 65, 00
Norwalk, Ohio Port Clinton, Ohio	2	1, 344 56	51, 000 5, 000	1	723 56	35, 000 ± 5, 000				1	621	16.00
Put in Bay, Ohio	į i	168	6,000	i	168	6, 000		j				
Suspension Bridge, New York	. 3 64	346 18, 303	19, 000 865, 200	2 42	305 13, 331	18, 000 764, 200	1 17	41 3, 567	1, 000 85, 000	5	1. 405	16, 00
Toledo, Ohio	59	18, 027	907, 300	32	9, 968	726, 000	20	5, 107	129, 300	7	2, 952	52, 00
Tonawanda, New York Vermilion, New York	19	5, 696 5, 051	287, 000 198, 000	12 1	3, 100 1, 6 01	223, 000 90, 000	3	1, 960	57,000	7 2	2, 596 1, 490	64, 00 51, 00
Lake Ontario	131	15, 859	676, 300	66	5, 407	460, 700 i	63	10.018	210, 600	2	434	5, 00
Cape Vincent, New York	52	2, 220	126, 500	24	886	94, 000	28	1, 334	32, 500			
Chaumont, New York	1	309	6,000	٠			1	309	6, 000	. .		
Hamlin, New York Henderson, New York	1 1	175 246	3, 000 4, 000				1 1	175 246	3, 000 4, 000		' 1'	
Medina, New York	1	9	2, 000 402, 000	1 22	9 3, 433	2,000					'	
Oswego, New York Pultneyville, New York	42	8, 842 80	1,500	22	· 3.433	289, 800	20	5, 409 80	112, 200 1, 500			
Rochester, New York	21	2, 276 521	90, 900 7, 700	16 1	999 12	70, 000 1, 200	3	951 401	16, 400 6, 000	1	326 108	4, 50 50
Sodus Point, New York Troy, New York	2	296	8,000	1	18	2,000	1 1	278	6,000	ļ	ļi	
Wilson, New York	2	555 280	18, 000 5, 000	١	j		1 2	555 280	18, 000 5, 000		! !	
Youngstown, New York	1	50	1, 700	1	50	1, 700						
St. Lawrence river	43	12, 830	754, 500	33	10, 852	731, 500	4	486	9,000	6	1, 492	14, 00
Alexandria Bay, New York	3	37	5, 000		37	5,000					[
Clayton, New YorkOgdensburg, New York	33	1, 328 11, 465	69, 500 680, 000	5 25	904 9,911	61, 000 665, 500	2 2	424 62	8,500 500	6	1, 492	14.00

EQUIPMENT, OCCUPATION,

TABLE 2.—EQUIPMENT OF FLEETS BY CLASSES—NUMBER, TONNAGE; AND VALUE OF ALL STEAMERS, SAILING INDICATIVE OF

١									STEAMER	RS.			
	PORTS.	TO	TAL EQUI	MENT.	Side	e-wheel pas	ssenger.	Propell	ers carryingers and i	ng both pas- freight.	Propel	llers carry only.	ing freight
		Num ber.	Gross tonnage.	Valuation.	Num- ber.	Gross tonnage.	Valuation.	Num- ber.	Gross tonnage.	Valuation.	Num- ber.	Gross tonnage.	: Valuation
1	Total	2, 737	920, 294	\$48, 580, 174	62		\$2,600,500	303	143, 907	\$10, 971, 124	433	388, 978	\$23, 438, 700
2	Lake Superior	167	39, 653	2, 763, 500		:-		29	12, 313	1, 091, 000	15	13, 517	898, 500
8 4 5 8	Ashland, Wisconsin	3	73 1,319 291 4,386	5, 000 44, 000 6, 000 338, 300				<u> </u>	73		1	42	4, 000
7	Marquette, Michigan	111	20, 759	1, 532, 200				19	10, 521	954, 500	9	5, 209	279, 50
8 9 0 1	Pequaming, Michigan Republic, Michigau St. Marys Falls, Michigan Superior, Wisconsin	2	2, 082 5, 314 477 4, 952	124, 000 239, 000 25, 000 450, 000			1	1	764 241		1 2 2	305 3,009 4,952	9, 000 156, 000 450, 000
12	Lakes Huron and St. Clair	·	262, 833	13, 107, 650	23	17, 729	1, 864, 500	43	17, 972	1, 296, 500	138	104, 477	6, 221, 50
13	Algonac, MichiganAlpena, Michigan Bay city, Michigan	9	2, 345 4, 984 31, 176	46, 000 166, 400 1, 146, 100			20.000	1 3	1, 117 2, 035	100,000 127,500		4 274	990.00
15 16 17	Caseville, Michigan	1	298	4, 000 7, 500	2 1	.	30, 000 6, 000	4	36		·		289, 00
18	Detroit, Michigan East China, Michigan	275	129, 768	7,547,800	. 18		1, 817, 000	17	8, 565	661, 500	56	,	3, 422, 50
19 20 21 22	East Saginaw, Michigan Marine, Michigan Mount Clemens, Michigan	30 23	1, 449 13, 261 9, 875 504	67, 000 419, 600 230, 800 1, 500	2	392	11,500			240, 000		1, 119	50,000
23 24	New Baltimore, Michigan Oscoda, Michigan	1 2	147 1, 289	· 11,000				2		11, 000			J
23 24 25 26 27	Port Huron, Michigan Saginaw, Michigan St. Clair, Michigan	293 10 12	61, 482 2, 829 3, 343	3, 253, 950 88, 500				11	1, 887 137	7.000	73 2 1		2, 392, 00 53, 00 15, 00
28	Lake Michigan	1,003	196, 216	9, 114, 400	22	5, 879	501, 500	96	28, 250	2, 048, 500	105	57,027	3, 511, 00
29 80 31 32	Benton Harbor, Michigan Charlevoix, Michigan Chicago, Illinois Escanaba, Michigan	339 5	699 488 71, 260 1, 615	12, 800 3, 088, 350 52, 000	5	523	39,000	34 1	13, 181 448	7, 000 1, 075, 500 25, 000	28	10,960	. ;
33 84	Fort Howard, Wisconsin Frankfort, Michigan	1	222	1,000	······	'i'	<u>'</u>		·;· ···		1		
35 86 37 38	Grand Haven, Michigan Green Bay, Wisconsin Holland, Michigan Kenosha, Wisconsin	225 10 2	22, 308 3, 300 220 7, 378		1	1, 659 95 2, 459	. [,] 	3	900			·	464, 500
39 40 41 42	Kowaunce, Wisconsin	111	752 2, 732 1, 775	34, 600	1		25,000						·
13 14	İ .	1	277 61, 69 4	2, 500 3, 205, 000	5	613	35, 500	12	3 282	166, 000	53	39, 172	2, 340, 50
45 46 47 48	Milwaukee, Wisconsin	17	217 3, 088 63 146	63, 100 7, 000 3, 500				2 1	504 63	24,000 7,000	1	· · · · · · · · · · · · · · · · · · ·	·
49 50 51 52 53	Pentwater, Michigan. Peshtigo, Wisconsin Petoskey, Michigan. Racine, Wisconsin St. James, Michigan	26	260 1,704 123 6,932 81	4, 500 52, 500 12, 000 145, 400 1, 500				1	123	12,000		-	
54 55 56 57	St. Joseph, Michigan Saugatuck, Michigan Sheboygan, Wisconsin South Haven, Michigan	3	164 647 4, 115 374	1,000 33,500 79,900 5,100	<u> </u>	-		3	647	33, 500		·	·
8 19 10	Spring Lake, Michigan Sturgeon Bay, Wisconsin Suttons Bay, Michigan Traverse, Michigan	2	345 550 232 336	5, 000 3, 000			. [.]			20,000			
52 53 54 55	Troy, Wisconsin Waukegan, Illinois Waukesha, Wisconsin Whitehall, Michigan	. 2		58, 000 600		.		1	706	25, 000	1	590	33, 0
66	Lake Erie	667	392, 903		10		144, 000			6, 342, 724			
87 88	Ashtabula, Ohio Avon, Ohio	1 1	175 264	5, 000						.'	 -		• • • • • • • • • • • • • • • • • • • •
10	Buffalo, New York Cleveland, Ohio Dunkirk, New York	219	128, 860 163, 227 522	8, 235, 124 8, 802, 800 29, 000	1	36	4, 000	43 19	34, 542 33, 986	2, 767, 424 2, 540, 000	50 66 1	72, 066 83, 979	4, 546, 0 4, 786, 5

AND CONSTRUCTION—Continued.

VESSELS, AND UNRIGGED CRAFT REPORTED ON IN THE PRECEDING TABLE, BUT DIVIDED INTO CLASSES OCCUPATION AND RIG.

	•	STEAMERS-	-continu	ea.					SAIL AN	D UNRIGGED	VESSELS.			
	Tugs.		ı "	All other c	lasses.		Schooner	8.		Lake barg	es.	A	ll other cl	asses.
Num- ber.	Gross tonnage.	Valuation.	Num- ber.	Gross tonnage.	Valuation.	Num- ber.	Gross tonnage.	Valuation.	Num- ber.	Gross tonnage.	Valuation.	Num- ber.	Gross tonnage.	Valuation
489	24, 451	\$2, 556, 300	180	11, 218	\$1, 302, 200	917	184, 029	\$4, 217, 200	301		\$3, 463, 500	52	2,048	\$30,650
67	2, 849	306, 300	15	578	48, 500	31	2, 784	74, 200	10	7,612			·	
i	35	6, 000							2	1, 284	38,000			
22 43	722 1, 856	97, 800 191, 500	5 10	136 442	12,500 36,000	1 1 29	291 88 2,405	6, 000 1, 500 66, 700	3 1	2, 684 326	175, 000 4, 000		'	
			ļ		50,000		2, 100		2	1, 013	45,000		1	
i	236	11,000	· · · · · · · · · · · · · · · · · · ·			• • • • • • • • • • • • • • • • • • •			2	2, 305	83, 000	• • • • • • • • • • • • • • • • • • •		
102	8, 383	639, 600	34	3,902	499, 500	203	33, 639	805, 500	171	75, 849	1,772,500	12	882	8, 050
102			34	5,802	499, 300	203	33, 039	803, 300	- 6	2, 345	46,000	!,———		0,000
1	12	1,000			 	7	3, 625	127, 400	8 38	3, 867 20, 265	66, 400 571, 200			
			 			• • • · · · · · ·	j · · · · · · · · · · · · · · · · · · ·	4,000		•••••		 		
34	3,671	272,000	19	3, 251	421,000	<u>83</u>	19, 074 776	411, 900 14, 000	44 2 22	21, 387 1, 449 8, 486	537, 300 67, 000 154, 100	<u> </u> 4.	401	4,600
 	· · · · · · · · · · · · · · · · · · ·				·	2 5	2,038	40, 500	22 17 1	6, 718 364	140, 300	1	140	1,000
		l	ļ	ļ	1	_i .	591	12,000	2	698		II 1		
66 1	4, 664 36	362, 600 4, 000	15	651	78, 500	100 1	6, 302 252 683	182, 200 500	21 5 5	6, 797 1, 573	116, 200 24, 000	7	341	2, 450
• • • • •		.!	i	' !	ļ	3	683	13, 000	5	1, 900	44,500			
184	7, 949	836, 100	46	2, 689	330, 500	. 488	76, 442	1, 481, 500	46	17, 353	394, 500	16	621	10,800
74	2, 469	298, 800	. 15	1, 677	171, 500	1 4 155	44 405 35, 859	1,000 5,800 710,000	18	6, 255	115,000	10	336	5, 550
				2,000	1	4 2	1. 167 222	27, 006 5, 500		-,,				
1 64	2, 572	1,000 261,800	23	575	67, 000	74	4, 784	122 400	<u>1</u>		38,000	3	 45	950
			il			3 2 12	955 220 3, 145	27. 500 3, 000 52, 900	3	1,350 196	28, 500 2, 000		1	
			/'············		1	1	160	3,000	 	180	2,000		,	ļ
	I					4 9 15	752 1,890 1,775	12, 000 25, 000 34, 600	i	312	4,000			
		954 500							1	1		1		
45	2, 901	274, 500	8	437	92,000	129 2 15	13, 034 217 2, 584	247, 200 4, 000 39, 100	6		49,000			300
						<u> </u> ::::::::::::::::::::::::::::::::::::							' 	3, 500
		.				2	260	4, 500		1, 704	52, 500			!
		1			1	15 1	2, 883 81	47, 400 1, 500				i	85	500
· · · · · · · ·			1	· • • • • • • • • • • • • • • • • • • •	1	2	164	1,000	l ¹	l 		! !.		
						24 4	3, 914 374	76, 900 5, 100	1	201	3, 000		l 	
				1		2	. 345	8,000	l'	! '		! !'		
			4	,	· · · · · · · · · · · · · · · · · · ·	1	320 232	2, 500 3, 000	! 	230	.			
		<u> </u>	ļ		!	1	301	7, 000						
			1			1 2	48 307	600 4,000						
123	4, 806	702, 000	i, 59	2, 965	328, 700	148	61, 014	1, 645, 200	67	35, 772		3	83	1 1
	175	27, 000		2,800	328, 100	146	01,014			- 30, 112	=33,000			2,500
54	2,057	817, 500	20	910	129, 200	1 17	264 10, 376	5, 000 290, 500	20	8, 909		1		
29	1,002	134,000	18	966		64 1		868, 800 1, 500	19	12, 302	352, 000	3	83	2,500

EQUIPMENT, OCCUPATION, AND

TABLE 2.—EQUIPMENT OF FLEETS

									STEAME	RS.				
	. PORTS.	TOTAL EQUIPMENT.			Side-wheel passengers.				Propellars carrying both pas- sengers and freight.			Propellers carrying freight only.		
	·	Num- ber.	Gross tonnage.	Valuation.	Num- ber.	Gross tonnage.	Valuation.	Num- ber.	Gross tonnage.	Valuation.	Num- ber.	Gross tonnage.	Valuation	
	Lake Erie—Continued.							 						
1	Erie, Pennsylvania Fairport, Ohio	37 5	29, 454 316	\$1,759,900 17,000		}	l 	il	5, 004	\$ 330, 500	14		\$1,347.000	
3	Fremont, Ohio		20	1.800				1	11	800				
4 5	Gratwick, Ohio	12	538 5, 091	28,000 274,700		¦····					2	3, 433	204, 000	
6 7 8	Lorain, Ohio Milan, Ohio Norwalk, Ohio	6 2	8, 621 6, 824 1, 344	321, 500 323, 500 51, 000				1	2, 279	140, 000	i	1,759 709 723	150, 000 60, 000	
9	Port Clinton, Ohio	1	56 168	5, 000 6, 000			1	1	' .					
10	· · · · · · · · · · · · · · · · · · ·	_			il -	106	\$0,000		· • • • • • • • • • • • • • • • • • • •					
11 12 13	Suspension Bridge, New York. Sandusky, Ohio Toledo, Ohio	3 64 59	346 18, 303 18, 027	19,000 865,200 907,300		1, 273 744		9 4	495 4, 528	45, 500 318, 500	1 19 9	276 11, 274 3, 311	15,000 583,200 215,000	
14	Tonawanda, New York	19	5, 696	287,000					2, 973	200, 000				
15	Vermilion, New York	6	5, 051	198,000]			1	1,601	90,000	
16	Lake Ontario	131	15, 859	676, 300	4	553	32, 500	32	1, 155	155, 900	3	2, 906	174, 000	
17	Cape Vincent, New York Charlotte, New York		2. 220	126, 500	2	85	14, 000		586	56, 500	1	72	4, 000	
18 19	Chaumont, New York	1	309	6,000							1			
20 21	Hamlin, New York Henderson, New York	1	175 246	3, 000 4, 000					·					
-	· •	_			li		1.							
22 23	Medina, New York Oswego, New York	1 42	9 8, 842	2, 000 402, 000			! !	7	225	68, 500	2	2,834	170,000	
24 25 26	Pultneyville, New York Rochester, New York	1 21	80 2, 276	1, 500 90, 900	2		18, 500	7	264	26,000	j			
26	Sacketts Harbor, New York	5	521	7, 700						1, 200			!. 	
27	Sodus Point, New York	2	296	8, 000				1	18	2,000			 	
28	Troy, New York	1 2	555 280	18, 000 5, 000					· · · · · · · · · · · · · · · · · · ·					
29 30	Youngstown, New York	í	50	1,700					50	1,700			•••••	
31	St. Lawrence river	43	12, 830	754, 500	3	877	58,000	12	393	36, 500	6	8, 827	568, 000	
32	Alexandria Bay, New York	3	37	5, 000				3	37	5, 000	<u> </u>			
33	Clayton, New York	7	1, 328	69, 500	3	877	58, 000	2 7	27	3,000			F40 644	
84	Ogdensburg, New York	33	11, 465	680, 000		· · · · · · · · · · ·		7	329	28, 500	6	8, 827	568, 000	

BY CLASSES, ETC.—Continued.

STEAMERS—continued.						SAIL AND UNRIGGED VESSELS.										
Tugs. All other classes.					Schooners.				Lake barg	es.	All other classes.					
Num- ber.	Gross tonnage.	Valuation.	Num- ber.	Gross tonnage.	Valuation.	Num- ber.	Gross tonnage.	Valuation.	Num- ber.	Gross tonnage.	Valuation.	Num- ber.	Gross tonnage.	Valuation.		
4 2	103 66	\$16, 000 10, 500	6 1 1	402 15	\$29,500 3,000	3 2	487 235	\$11,900 3,500	1	825	\$25,000	•		! !		
• • • • • • • • • • • • • • • • • • •			6	99	1,000 22,000	3	649	13, 700	1 1	538 910	28, 000 35, 000			· • • • • • • • • • • • • • • • • • • •		
2		7, 500				13 3	5, 442 1, 989	119, 5 0 0 58, 500	2 1 1	1, 377 1, 847 621	44, 500 65, 000 16, 000					
1	56	5, 000	:						įi			. 		·		
1 5 14 7	29 232 916 127	3, 000 26, 000 132, 500 23, 000	3 3	57 469	10, 500 25, 000	1 17 20	41 3. 567 5, 107	1, 000 85, 600 129, 300	5 7 7	1, 405 2, 952 2, 596	16, 000 52, 000 64, 000		!	·		
						3	1, 960	57, 000	2 1	1, 490	51,000					
8	185	36, 800	19	608	61,500	45	9, 726	202, 300.	1	326	4, 500	19	400	\$ 8,800		
	·		6	143	19, 500	12	1, 058	24, 600			·	16	276	7, 900		
· · · · · · · · · · · · · · · · · · ·			 			1 1 1	309 175 246	6, 000 3, 000 4, 000								
8	185	36, 800	5 7	9 189 267	2, 000 14, 500 25, 500	18 1 4	5, 393 80 951	111, 800 1, 500 16, 400		326	4,500	2	16	400		
• • • • • • • • • • • • • • • • • • •	'				20,000	3	401	6, 000			±,000	1	108	500		
						1 1 2	278 555 280	6, 000 18, 000 5, 000								
5	279	35, 500	7	476	33, 500	2	424	8, 500	6	1, 492	14, 000	2	62	500		
5	279	35, 500	7	476	33, 500	2	424	8, 500	6	1, 492	14,000	2	62	500		

EQUIPMENT, OCCUPATION, AND CONSTRUCTION—Continued.

TABLE 3.—PERCENTAGES OF TONNAGE AND VALUATION—NUMBER, GROSS AND NET TONNAGE, AND ESTIMATED CARRYING CAPACITY, COMMERCIAL VALUATION AND VALUE PER GROSS TON OF ALL STEAMERS, SAILING VESSELS, AND UNRIGGED CRAFT; ARRANGED BY PERCENTAGES OF TONNAGE AND VALUATION APPLIED TO THE LAKES AND ST. LAWRENCE RIVER BY CLASS ENTRIES.

ALL LAKES AND ST. LAWRENCE RIVER.

				TONNAGE.				VALUAT	ION.	
			Percent	age of—				Percents	ige of—	
CLASSES OF VESSELS.	Number.	Gross.	Total tonnage on Great Lakes.	Total tonnage of class named on all the lakes.	Net.	Estimated carrying capacity.	Commercial.	Total valuation on Great Lakes.	Total valuation of class named on all the lakes.	Per ton gross.
All classes	2, 737	920. 294	100.00	100.00	77 6 , 817	1, 248, 784	\$48, 580, 174	100.00	100.00	\$1
teamers: Side-wheel passenger Propellers carrying both passengers and freight.	62 303	27, 259 143, 907	2.96 15.64	100.00	19, 465 112, 585	27, 633 157, 035	2, 600, 500 10, 971, 124	22. 58	100.00 100.00	. !
Propellers carrying freight only Tugs Ferry Pleasure yachts Pile drivers Sand dredges Sand boats Fire boats Steam lighters Unclassified steam yessels	40 54 15 4 1 7	388, 978 24, 451 4, 702 2, 121 247 398 81 631 392 2, 646	42. 26 2. 66 0. 51 0. 23 0. 03 0. 04 0. 01 0. 07 0. 04 0. 29	100, 00 100, 00 100, 00 100, 00 100, 00 100, 00 100, 00 100, 00 100, 00	314, 875 14, 292 2, 933 1, 320 150 295 71 319 368 1, 913	453, 574 14, 352 3, 849 1, 128 77 431 102 354 339 1, 895	23, 438, 700 2, 556, 300 498, 000 312, 700 53, 500 14, 000 -5, 000 195, 000 14, 000 210, 000	48. 25 5. 26 1. 03 0. 64 0. 11 0. 03 0. 01 0. 40 0. 03	100.00 100.00 100.00 100.00 100.00 100.00 100.00 100.00 100.00	10 10 11 12 22
ail and unrigged vessels: Schooners Lake barges. Scows Sloops Yawls	44	184, 029 138, 404 996 1, 035	20. 00 15. 04 0. 11 0. 11	100.00 100.00 100.00 100.00 100.00	174, 869 131, 407 952 986 17	334, 360 249, 847 1, 833 1, 943 32	4, 217, 200 3, 463, 500 9, 000 21, 350 300	8. 68 7. 13 0. 02 0. 05	100. 00 100. 00 100. 00 100. 00 100. 00	2 2 1
•	··········		LAKE SUI	PERIOR.						
All classes	167	39, 653	100.00	4. 31	31, 902	47, 001	2, 763, 500	100.00	5, 69	7
teamers: Side-wheel passenger Propellers carrying both passengers and freight. Propellers carrying freight only	29 15	12, 313 13, 517	31. 05 34. 09	8. 56 3. 47	9, 176 10, 666	14, 666	1, 091, 000 898, 500	39. 48 32. 51	9. 95	
Tugs Ferry Pleasure yachts Pile drivers Sand dredges Sand boats	6 4	. 				310 41	306, 300 23, 500 17, 500			
Fire boats Steam lighters Unclassified steam vessels	5	90	0. 23	3. 40			7, 500	0. 27	3. 57	
Schooners Lake barges Scows Sloops Yawls	10	 .			2, 669 7, 388	5, 143 14, 103	74, 200 845, 000	12. 49	1.76 9.96	
	i	LAKES	HURON A	ND ST. CL	AIR.	:	<u></u>		<u> </u>	
All classes.	726	262, 833	100, 00	28. 56	220, 588	366, 971	13, 107, 650	100.00	26. 98	
eamers: Side wheel passenger Propellers carrying both passengers and freight.	23 43	17. 729 17, 972	6. 74 6. 84	65. 04 12. 49	12, 570 13, 391	17, 828 19, 656	1, 864, 500 1, 296, 500	14. 22 9. 89	71.70 11.82	. 1
Propellers carrying freight only Tugs Ferry Pleasure yachts Pile drivers Sand dredges Sand boats		104, 477 8, 383 3, 436 , 367 , 5	39. 75 3. 19 1. 31 0. 14	73. 07	82, 692 5, 068 2, 103 249 5	120, 202 6, 092 2, 939 128 3	6, 221, 500 639, 600 410, 000 74, 000 4, 000	47. 47 4. 88 3. 13 0. 56 0. 03	26, 55 25, 02 82, 33 23, 66 7, 48	
Fire boats. Steam lighters Unclassified steam vessels		94	0.04	3. 55	50	27	11, 500	0, 09	5. 48	
Schooners. Lake barges Scows. Sloops	203 171 2 10	33, 639 75, 849 402 480	12. 80 28. 86 0. 15 0. 18	18. 28 54. 80 40. 36 46. 38	31, 836 71, 787 382 455	61, 962 136, 534 732 868	805, 500 1, 772, 500 1, 500 6, 550	6. 15 13. 52 0. 01 0. 05	19. 10 51. 18 16. 67 30. 68	

EQUIPMENT, OCCUPATION, AND CONSTRUCTION—Continued.

TABLE 3.—PERCENTAGES OF TONNAGE AND VALUATION, ETC.—Continued. LAKE MICHIGAN.

				TONNAGE.				VALUA	TION.	
•			Percenta	age of—				Percentage of-		
CLASSES OF VESSELS.	Number.	Gross.	Total tonnage on Great Lakes.	Total tonnage of class named on all the lakes.	Net.	Estimated carrying capacity.	Commercial.	Total valuation on Great Lakes.	Total valuation of class named on all the lakes.	Per ton. gross.
All classes	1, 003	196, 216	100.00	21.32	167, 037	280, 464	\$9, 114, 400	100.00	18. 76	\$4
teamers: Side wheel passenger Propellers carrying both passengers and freight. Propellers carrying freight only Tugs Ferry		5, 879 28, 256 57, 027 7, 949 234	3. 00 14. 40 29. 06 4. 05 0. 12	21. 56 19. 64 14. 66 32. 51 4. 98	4, 501 22, 044 44, 215 4, 649 144	6, 257 30, 909 65, 613 4, 582	501, 500 2, 048, 500 3, 511, 000 836, 100	5. 50 22. 48 38. 52 9. 17	19. 28 18. 67 14. 98 32. 71	8 7 6 10
Pleasure yachts Pile drivers Sand dredges	4	163	0.12	7. 69	109	80 113	29, 500 26, 000	0. 32 0. 29	5. 92 8. 31	12
Sand boats Fire boats Steam lighters	. 5	432	0, 22	68.46	219	240	135, 000	1.48	69. 23	31
Unclassified steam vesselsail and unrigged vessels: Schooners	488	1, 860 76, 442	0. 95 38. 96	70. 29 41. 54	72, 630	1, 569 138, 463	140,000	1.54 16.25	66. 67 35. 13	! ? ! !
Lake barges Scows. Sloops Yawis	4	17, 353 486 135	8. 84 0. 25 0. 07	12. 54 48. 80 13. 04	16, 534 467 131	31, 397 906 335	394, 500 7, 000 3, 800	4. 33 0. 08 0. 04	11, 39 77, 78 17, 80	1 2
		· · '	LAKE I	ERIE.		<u>i</u>	·		· ' -	·
All classes.	667	392, 903	100. 00	42.69	332, 991	518, 134	22, 163, 824	100.00	45. 63	
teamers: Side-wheel passenger Propellers carrying both passengers and freight.	10 91	2, 221 83, 818	0. 57 21. 33	8. 15 58. 24	1, 505 67, 056	2, 482 94, 470	144, 000 6, 342, 724	0. 65 28. 62	5. 54 57. 81	
Propellers carrying freight only Tugs Ferry Pleasure yachts Pile drivers	20	202, 224 4, 806 284 1, 056 242	51. 47 1. 22 0. 07 0. 27 0. 06	51. 99 19. 66 6. 04 49. 79 97. 98	167, 518 2, 734 189 653 145	241, 707 2, 180 229 730 74	12, 065, 700 702, 000 19, 000 136, 700 49, 500	54. 44 3. 17 0. 09 0. 62 0. 22	51. 48 27. 46 3. 32 43. 72 92. 52	1:
Sand dredges Sand boats Fire boats Steam lighters Unclassified steam yessels	1 1 2 4	398 81 199 392 313	0. 10 0. 02 0. 05 0. 10 0. 08	100, 00 100, 00 31, 54 100, 00	295 71 100 368 229	431 102 114 339 176	14,000 5,000 60,050 14,000 30,500	0. 06 0. 02 0. 27 0. 06 0. 14	100. 00 100. 00 30. 77 100. 00 14. 52	3
ail and unrigged vessels: Schooners Lake barges. Scows	148 67	61, 014 35, 772	15. 53 9. 11	33. 15 25. 85	58, 099 33, 950	110, 486 64, 464	1, 645, 200 933, 000	7. 42 4. 21	39. 01 26. 94	
Sloops. Yawls	2	66 17	0.02	6. 38 100. 00	62 17	118 32	2, 200 300	0. 01	10. 30 100. 00	3
			LAKE ON	TARIO.						
All classes	131	15, 859	100.00	1.72	13, 699	23, 272	676, 300	100.00	1.39	
teamers: Side-wheel passenger Propellers carrying both passengers and freight.	4 32	553 1, 155	3. 49 7. 28	2, 03 0, 80	· 397 685	442 482	32, 500 155, 900	4. 81 23. 05	1. 25 1. 42	1
Propellers carrying freight only Tugs Ferry Pleasure yachts Pilo drivers	1 13	2, 906 185 109 339	18. 32 1. 17 0. 69 2. 14	0. 75 0. 76 2. 32 15. 98	2, 209 93 95 192	3, 199 49 137 98	174, 000 36, 800 2, 000 51, 000	25. 73 5. 44 0. 30 7. 54	1. 44 0. 40	1 1:
Sand dredgesSand boatsFire boats				,						
Steam lighters. Unclassified steam vessels all and unrigged vessels: Schooners	5 45	160 9, 726	1. 01 61. 33	6. 05 5. 29	107 9, 232	55 17, 521	8, 500 202, 300	1. 26 29. 91	4. 05 4. 80	
Lake barges Seows Sloops Yawis	18	326 108 292	2. 05 0. 68 1. 84	0. 23 10. 84 28. 21	310 103 276	589 195 505	4, 500 500 8, 300	0. 66 0. 07 1. 23	0. 13 5. 55 38, 88	i

STATISTICS OF TRANSPORTATION.

EQUIPMENT, OCCUPATION, AND CONSTRUCTION—Continued.

TABLE 3.—PERCENTAGES OF TONNAGE AND VALUATION—Continued.

ST. LAWRENCE RIVER.

				TONNAGE.	VALUATION					
			Percents	ige of—		Estimated carrying capacity.	Commercial.	Percentage of—		
CLASSES OF VESSELS.	Number.	Gross.	Total tonnage on Great Lakes.	Total tonnage of class named on all the lakes	Net.			Total valuation on Great Lakes.	Total valuation of class named on all the lakes.	Per ton, gross.
All classes	43	12, 830	100.00	1: 40	10, 600	12, 942	\$754, 500	100.00	1. 55	\$ 5
teamers:	3	877	6, 84	3, 22	492	624	58, 000	7.69	2. 23	. 6
Side-wheel passenger Propellers carrying both passengers and freight.	12	393	3.06	0. 27	233	128	36, 500	4.84	0. 83	9
Propellers carrying freight only	6 (8,827	68.80	2. 27	7, 575	8, 187	568, 000	75. 28	2. 42	6
Tugs	5	279	2. 17	1. 14	141	127	35, 500	4.70	1.39	1:
Ferry		274	2.14	5. 83	137	154	14,000	1.86	2.81	:
Pleasure yachts		73	0.57	3. 44	36	18	7,500	0.99	2.40	10
Pile drivers	!······		!] '						
Sand dredges										.
Sand boats										,
Fire boats								· · · · · · · · · · · · · · · ·		• • • • • • • • •
Steam lighters										•••••
Unclassified steam vessels	3	129	1.01	4.88	83	42	12,000	1. 59	5.71	9
il and unrigged vessels: Schooners		404	3.30	0.23	400	785	8, 500	1 10	0.20	
		424			403	2,760		1. 13 1. 85	0.20	2
Lake barges		1,492	11. 63	1.08	1, 438	2, 100	14,000	1.83	U. 10	
Sloops Vawls	2	62	0.48	5. 99	62	117	500	0.07	2.34	•••••

EQUIPMENT, OCCUPATION, AND CONSTRUCTION—Continued.

TABLE 4.—OCCUPATION BY CLASS GROUPS—NUMBER, GROSS AND NET TONNAGE, AND ESTIMATED CARRYING CAPACITY COMMERCIAL VALUE, AND VALUE PER GROSS TON OF ALL STEAMERS, SAILING VESSELS, AND UNRIGGED CRAFT; GROUPED BY CLASSES, AND ENTERED BY CLASS TOTALS FOR EACH OF THE LAKES AND ST. LAWRENCE RIVER.

. LAKES AND RIVER.	Number.	Gross tonnage.	Net tonnage.	Estimated carrying capacity (tons).	Commercial valuation.	Valuation per gross ton.
Summary of entire lake fleet	2, 737	920, 294	776, 817	1, 248, 784	\$48, 580, 174	\$5
SIDE-WHEEL PA	SSENGER	STEAMERS	š.		•	
Total	. 62	27, 259	19, 465	27, 633	2, 600, 500	9
Lake Superior		- -				
akes Huron and St. Clair	23 22	17, 729 5, 879	12. 570 4, 501	17, 828 6, 257	1, 864, 500 501, 500	10
ake Erie.	. 10	2, 221 553	1,505	2, 482	144, 000	
ake Ontario t. Lawrence river	3	558 877	397 492	442 624	32, 500 58, 000	8
PROPELLERS CARRYING BO	TH PASSE	ENGERS AN	D FREIGHT.		'	
Total	. 303	143, 907	112, 585	157, 035	10, 971, 124	; ;
			=		=	
ake Superior	. 43	12, 313 17, 9 72	9. 176 13, 391	11, 390 19, 656	1, 091, 000 1, 296, 500	8
Ake Michigan	96	28, 256	22. 044	30, 909	2, 048, 500	. 7
.ake Erie	. 32	83, 818 1, 155	67, 056 685	94, 470 482	6, 342, 724 155, 900	13
t. Lawrence river	12	393	233	128	36, 500	į .
PROPELLERS CAR	RYING FR	EEIGHT ON	LY.			
Total		388, 978	314, 875	453, 574	23, 438, 700	
ake Superior	. 15	13, 517	10, 666	14, 666	898, 500	1
akes Huron and St. Clairake Michigan	. 138 105	104, 477 57, 027	82, 69 2 44, 215	120, 202 65, 613	6, 221, 500 3, 511, 900	
aka Prie	. 166	202, 224	167, 518	241, 707	12, 065, 700	1 0
ake Ontario t. Lawrenos river	. 8	2, 906 8, 827	2, 209 7, 575	3, 199 8, 187	174, 000 568, 000	
•	rugs.				,	
Total	. 489	24, 451	14, 292	14, 352	2, 556, 300	10
ake Superior	. 67	2, 849	1, 607	1, 322	306, 300	10
		8, 383	5, 068	6, 092 4, 582	639, 600 836, 100	1 7
ake Michigan	. 123	7, 949 4, 806	4, 649 2, 734	2, 180	702, 000	10
ake Untario t. Lawrence river	. 8	185 279	93 141	127	36, 800 35, 500	1 1
F	ERRY.				I	'
Total	. 40	4, 702	2, 933	3, 819	498,000	10
ake Superior	. 6	365	265	310	23, 500	-
akas Huran and St Clair	. 16	3, 436	2, 103	2, 939	410,000	11
ake Michigan ake Erie	. bi	234 284	i 144 189	80 229	29, 500 19, 000	12
aka (hataria	. 1 1	100	95	137	2,000	1 1
. Lawrence river] 2	274	137	154	14,000	'
PLEASU	RE YACH	TS.				
PLEASU	TRE YACH	2, 121	1, 320	1, 128	312,700	14
Total	. 54	2, 121	:			14
Total	. 54 . 4 !	2, 121 123 367	81 249	41 128	17, 500 74, 000	14
Totalake Superior	. 54 . 4 ! . 11 . 4	2, 121	81	41	17, 500	+ 14

STATISTICS OF TRANSPORTATION.

EQUIPMENT, OCCUPATION, AND CONSTRUCTION—Continued.

TABLE 4.—OCCUPATION BY CLASS GROUPS—Continued.

PILE DRIVERS.

LAKES AND RIVER	Number.	Gross tonnage.	Net tonnage.	Estimated carrying capacity (tons).	Commercial val- uation.	Valuation per gross ton.
Total	15	247	150	77	\$53, 500	\$2
Lake Superior	1	5	5	3	4,000	. 8
Lake Michigan			146		40 500	
.ake Erie	14		145	74	49, 500	2
tt. Lawrence river						
SAND	DREDGES	S .				
Total	4	398	295	431	14,000	! ;
Lake Superior			 		! 	
.akes Huron and St. Clair .ake Michigan						
ake Erie	4	398	295	431	14,000	1
ake Ontario						
St. Lawrence river		•••••	<u> </u>			
SAND	BOATS.					•
Total	. 1	81	71	102	5, 000	' e
Lake Superior						
akes Huron and St. Clair ,ake Michigan	· • • • • • • • • • • • • • • • • • • •	• • • • • • • • • • • • • • • • • • • •		<u> </u>	· · · · · · · · · · · · · · · · · · ·	;
ake Erie	1	81	71		5,000	. 6
ake Ontario	'				,	·
t. Lawrence river		•••••		 		¦
FIRE	BOATS.					
Total	7	631	319	354	195, 000	301
Lake Superior						
Lake Michigan	5	432	219	240	135, 000	313
Lake Erie	2	199	100	114	60,000	300
ake Ontariot. Lawrence river			į			
M. LEWIGHCE HVCL	• • • • • • • • • • • • • • • • • • • •		1			<u> </u>
STEAM	LIGHTE	RS.				
Total	4	392	368	339	14,000	3
Lake Superior						.'
ake Michigan						· · · · · · · · · · · · · · · · · · ·
ake Erie	4	392	368	339	14,000	3
ake ()ntario						· • • • • • • • • • • • • • • • • • • •
UNCLASSIFIED	STEAM	VESSELS.				
Total	55	2, 646	1, 913	1, 895	210,000	7
ake Superior	5	90	50	26	7, 500	1 8
akes Huron and St. Clair	6.	94	50	27	11,500	12
ake Michigan	27	1,860	1, 394	1,569	140, 000	3
ake Erieake Ontario	9 5	313 160	229	176	30, 500	
t. Lawrence river	3	129	107 83	55 42	8, 500 12, 000	
	<u> </u>					
SCHO	OONERS.					
Total	917	184, 029	174, 869	334, 360	4, 217, 200	
	31	2, 784	2, 669	5, 143	74, 200	
ake Superior		33, 639	31, 836	61, 962	805, 500	1
akea Huron and St. Clair	. 203					
akes Huron and St. Clairake Michigan	i 488 '	76, 442	72, 630	138, 463	1, 481, 500	1
akes Huron and St. Clair	i 488 : : 148	76, 442 61, 014	72, 630 58, 099	138, 463 110, 486	1, 481, 500 1, 645, 20 0	
.ake Superior	i 488 : : 148	76, 442	72, 630	138, 463	1, 481, 500	

TRANSPORTATION ON THE GREAT LAKES.

EQUIPMENT, OCCUPATION, AND CONSTRUCTION—Continued.

TABLE 4.—OCCUPATION BY CLASS GROUPS—Continued.

LAKE BARGES.

LAKES AND RIVER.	Number.	Gress tonnage.	Net tonnage.	Eatimated carrying capacity (tons).	Commercial val- nation.	Valuation per gross ton.
Total	3,01	138, 404	131, 407	249, 847	\$3,463,500	\$25
Lake Superior Lakes Huron and St. Clair Lake Michigan Lake Chee Lake Crie Lake Ontario St. Lawrence river	10 171 46 67 1 6	7, 612 75, 849 17, 353 35, 772 326 1, 492	7, 388 71, 787 16, 534 33, 950 310 1, 438	14, 103 136, 534 31, 397 64, 464 589 2, 760	345, 000 1, 772, 500 394, 500 933, 000 4, 500 14, 000	. 45 23 23 26 14 9
sc	ows.			•		
Total	7	996	952	1, 833	9,000	9
Lake Superior Lakes Huron and St. Clair Lake Michigan	2 4	402 486	382 467	732 906	1,500 7,000	4 14
Lake Erie Lake (Intario St. Lawrence river	1	108	108	195	500	5
SL	OOPS.					
Total	44	1, 035	986	1,943	21, 350	21
Lake Superior Lakes Huron and St. Clair Lake Michigan Lake Erie. Lake Cntario St. Lawrence river	10 12 2 18 2	480 135 66 292 62	455 131 62 276 62	868 335 118 505 117	6, 550 3, 800 2, 200 8, 300 500	14 28 33 28
YA	WLS.		·	•	·	1
*Total	1	17	17	32	300	18
Lake Superior						
Lakes Huron and St. Clair Lake Michigan	1 1					

EQUIPMENT, OCCUPATION, AND CONSTRUCTION—Continued.

TABLE 5.—CONSTRUCTION BY LOCALITIES—MATERIAL, NUMBER. TONNAGE, VALUE, AND AVERAGES OF VALUE AND TONNAGE OF ALL THE LAKE FLEET ENTERED FOR EACH PORT, WITH TOTALS FOR EACH LAKE AND ST. LAWRENCE RIVER.

PORTS.	Material.	Number.	Gross Tonnage.	Valuation.	Average valuation per ton.	Average tonnage.
Total		2, 737	920, 294	\$48, 580, 174	\$ 53	33
ke Superior		167	39, 653	2, 763, 500	70	23
Ashland	Wood	1	73	5, 000	68	7
BaragaBayfield	do	3	1, 319 291	44, 000 6, 000	33 21	44
Do Do		3 2	2, 684 98	175, 000 20, 000	65 204	85
Do		1 33	37 1,567	8, 000 135, 30 0	216 86	3
Marquette Do	Steel	107	9, 904 10, 855	900, 000 632, 200	91 58	2, 47 16
Pequaming	do	4	2, 082	124, 000 239, 000	60 45	55
Sault Ste. Marie. Superior	do	2 2	5, 314 477 4, 952	25, 000 25, 000 450, 000	52 91	1,39 23 2,47
kes Huron and St. Clair		726	262 , 833	13, 107, 650	50	34
Algonac	Wood	6	2, 345 1, 117	46. 000	20	39
Alpena Do	Steel	.18	1, 117 3, 867	100, 000 66, 40 0	90 17	1,11 48
Bay city	Iron	1 55	306 30, 870	25, 000 1, 121, 100	82 36	36 56
Caseville		1	298	4,000	13	79
Cheboygan	Steel	2 3	83 5, 354	7, 500 805, 000	90 150	1,78
Do		7 7	6, 096 13, 175	706, 000 1, 100, 000	116 83	1,88
Do		258 2	105, 149 1, 449	4, 936, 800 67, 000	47 46	40 72
East Saginaw	do	30	13, 261	419, 600	32 23	10
Marine	do	23	9, 875	230, 800	26	
Mount Clemens	do	2 2	504 147	1, 500 11, 000	3 75	25. 74
Oscoda Port Huron	Iron	3 1	. 1, 289 161	17, 000 12, 000	13 75	436 161
Do	Composite	1 291	58 61, 26 3	15, 000 3, 226, 950	259 53	54 211
Saginaw St. Clair	do	10 12	2, 829 3, 343	88, 500 100, 500	31 30	283 271
ke Michigan		1,003	196, 216	9, 114, 400	46	190
Benton Harbor	Wood	3	699 488	39, 500 12, 800	57 26	233
Chicago		6 2	3, 481	335,000	96	. 1, 741
Do	Wood	335	365 67, 414	30, 000 2, 723 , 350	82 40	187 20 1
Escanaba Fort Howard	do	5 2	1, 615 222	52, 000 5, 500	32 25	23 111
Frankfort	do	1	7	1,000	143	7
Grand Haven	Iron	1 5	2, 534	7, 000 321, 000	15 6 127	567
Do		219	19, 729	1. 280, 650 115, 000	65 35	90 330
Green Bay	do	10 2	3, 300 220	3,000	14	110
Kenosha Kewaunee	dodo	19 1	7, 378 1 6 0	358, 900 3, 000	49 19	388 100
Ludington Manistee	do	11 11	752 2,732	12, 000 54, 000	16 20	186 246
Manitowoc	do	15	1,775	34, 600	19	118
Menominee Milwaukee		1 3	277 1,070	2, 500 82, 000	77	277 357
Do		256	60, 624	3, 123, 000	52	237 107
Montague	·do	2 17	217 3, 088	4, 000 63, 100	18 20	185
Northport Onekama	do	1 1	63 146	7, 000 3, 500	111 24	14
Pentwater		2	260	4, 500	17	13
Petoskey	do	3 1	1,704 123	52, 500 12, 000	31 96	50 12
Racine	do	26 1	6, 932 81	145, 400 1, 500	21 19	207 81
St. James				-,		
St. James	do	2	164 647	1, 000 38, 500	6 52	85 210

EQUIPMENT, OCCUPATION, AND CONSTRUCTION—Continued.

TABLE 5.—CONSTRUCTION BY LOCALITIES—Continued.

PORTS.	Material.	Number.	Gross tonnage.	Valuation.	Average valuation per ton.	Average tonnage.
	ood	2	345	\$8,000	*2 3	172
Sturgeon Bay	do	2	550	5, 000	9	275
Suttons Bay	do	1	232	3, 000	13	232
1 raverse	ao	1	336	20, 000	60	336
Troy	do	1	301	7, 000	23	301
Waukegan	do	2	1, 296	58, 000	45	648
Waukesha Whitehall	do	1 2	48 307	600 4, 000	13 13	. 48 . 154
W HIVEHOLD		-	301	4,000	1 10	. 109 I
ake Erie		667	392, 903	22, 163, 824	56	589
AshtabulaW	ood		175	27, 000	154	
Avon	do	ī.	264	5,000	19	' 44 264
	æl	14	29, 853	2, 950, 000	99	2, 132
	n	12	8, 779	753, 2 24	86	732
	mposite	1	1, 399	90, 000	64	1,399
	ood	177	88, 829	4, 441, 900	50	502
	el	. 8	13, 839	1, 252 000	90	1,730
	on	208	6, 147 143, 241	515, 000 7, 035, 800	84 49	2, 049 689
	do	3	522	29, 000	56	174
Erie Ste		. i	0.500	005 000	1 00	0.500
	el on	1 7	2, 500 9, 886	225, 000 711, 000	90 72	. 2, 500 1, 412
	ood		17, 068	823, 900	48	589
Fairport	do	29 5	316	17,000	54	63
Fremont	do	2	20	1,800	90	10
Gratwick	do	. 1	538	28,000	52	538
Huron	do	12	5, 091	274, 700	54	424
Lorain	od	1 17	1, 759 6, 862	150, 000 171, 500	85 25	1, 759 404
Do. Wo	do	6	6, 824	323, 500	47	1, 137
Y.				•• •••		
Norwalk. Port Clinton		1	1, 344 56	51, 000 5, 000	38 89	672 56
Put in Bay Suspension Bridge	do	ī l	168	6, 000	36	168
Suspension BridgeSandusky	do	3	346	19,000	55	115
Sandusky		64	18, 303	865, 200	47	286
Toledo Iro	n	1	173	17,000	98	173
Do	ood	58 19	17, 854 5, 696	890, 300	50	308
Vermilion	do	6	5, 051	287, 000 198, 000	50 39	300 842
	,	1	,			
ake Ontario		131	15, 8 5 9	676, 300	43	121
	ood,	52	2, 220	126, 500	57	· 43
	ood	·····i	309	6, 000	19	309
Hamlin	do	i	175	3,000	17	175
Henderson	do	1	246	4,000	16	246
Medina	do	1	ا بو	2,000	222	9
Oswego.	do	42	8. 842	402, 000	45	211
Pultneyville		1	80	1. 500	19	80
	mposite	1 20	2, 189	15, 000 75, 900	172 35	ห7 109
			2, 102	10.000	30	100
	do	5	521	7, 700	15	104
Sodus Point	op	2 1	296 555	8, 000 18, 000	27 32	148 555
Wilson	do	2	280	5, 000	18	140
Youngstown	do	1 .	50	1.700	34	. 50
t. Lawrence river		43	12, 830	754, 500	59	298
					.,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,	
Alexandria Bay Wo	ood	3	37	5, 000	135	12
Clayton Iro	n	1 6	313 1, 015	33, 000 36, 500	105 36	313 16 9
Do	do	33	11, 465	680, 000	59	347
			,	,		

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STATISTICS OF TRANSPORTATION.

EQUIPMENT, OCCUPATION, AND CONSTRUCTION—Continued.

TABLE 6.—CONSTRUCTION BY MATERIALS—MATERIAL, NUMBER, TONNAGE, VALUE, AND AVERAGES OF VALUE AND TONNAGE OF ALL THE LAKE FLEET ENTERED BY EACH PORT, BUT GROUPED TO SHOW THE TOTALS FOR EACH MATERIAL OF CONSTRUCTION.

	87	reel.						OOD.	,		_
PORTS.	Number.	Tonnage.	Valuation.	Average valuation per ton.	Average tonnage.	PORTS.	Number.	Tonnage.	Valuation.	Average valuation per ton.	tonna
Total	40	75, 48 8	\$7, 349,.000	\$97	1, 887	Total	2, 641	794, 128	≱36, 777, 950	\$46	- ; 34
Lake Superior	9	17, 540	1, 525, 000	87	1, 949	Lake Superior	155	21, 978	1, 210, 500	55	!=
Duluth	3		175, 000	65	895	Ashland	1 3	73 1, 319	5, 000 44, 000	68 33	-
Marquette Superior	2	9, 904 4, 95 2	900, 00 0 450, 000	91 91	2, 476 2, 476	Bayfield Duluth	1 33	291 1, 567	6, 000 135, 300	21	3
Lakes Huron and St. Clair	4	6, 471	905, 000	140	1, 618	MarquettePequaming	107 4	10, 855 2, 082	632, 200 124, 000	58 60	10 52
Alpena Detreit	1 3	1, 117 5, 354	100, 000 805, 000	90 150	1, 117 1, 785	Republic	. 4	5, 314 477	239, 000 25, 000	45 52	1.35
Lake Michigan	3	3, 526	342, 000	. 97	1, 175	Lakes Huron and St. Clair	705	236, 572	10, 344, 650	44	23
ChicagoGrand Haven	2	3, 481 45	335, 000 7, 000	96 156	1, 741 45	Algonae	6 8 55	2, 345 3, 867 30, 870	46, 000 66, 400 1, 121, 100	20 17 36	1 39 48 : 56
						Bay city Caseville Cheboygan	. 1	298 83	4. 000 7, 500	13 90	5
Lake Erie Buffalo	24	47, 951	4. 577, 000	95	1,998	Detroit East China	258 2	105, 149 1, 449	4, 936, 800 67, 000	47 46	40 72
Cleveland		29, 853 13, 839	2, 950, 000 -1, 252, 000	90	2, 132 1, 730	East Saginaw	30 23	13, 261 9, 875	419, 600 230, 800	32 23	443 423 254
Erie Lorain	1	2, 500 1, 759	225, 000 150, 000	90 85	2, 500 1, 759	Mount Clemens	2	504	1, 500	3	l
	11	RON.		•		New Baltimore Oscoda	2 3	147 1, 289	11,000 17,000	75 13	74 431 211
				·		Port Huron	291 10	61, 263 2, 829	3, 226, 950 88, 500	53 31	21) 283 271
Total	45	35, 922	3, 225, 224	90	798	St. Clair	12	3, 343	100, 500	30	:
Lake Superior	2	98	20,000	204	49	Lake Michigan	990	188, 721	8, 339, 400	57	
Duluth	2	98	20, 000	204	49	Benton Harbor Charlevoix Chicago	3 6 335	488 67, 414	39, 500 12, 800 2, 723, 350	26 40	81 20 1
Lakes Huron and St. Clair		6, 557	743, 000	113	729	Escanaba	5 2	1, 615 222	52, 000 5, 500	32 25	111
Bay cityDetroit	1 7	306 6, 090		82 116	306 870	FrankfortGrand Haven	1 219	7 19, 729	1, 000 1, 280, 650	143 65 35	90
Port Huron	1 ;	161	12, 000	75	161	Green Bay	10 2 19	3, 300 220 7, 378	115,000 3,000 358,900	35 14 49 ;	336 110 388
Lake Michigan		3, 969	433, 000	109	397	Kewaunee	1 4	160 752	3, C00 / 12, 000	19 16	160 188
Chicago Grand Haven	5	365 2, 534 1, 070	30, 000 321, 000	82 127	183 507	Manistee	11	2, 732 1, 775	54, 000 34, 600	20 19	248 118
Milwaukee	3 !	1, 970 	82, 000	77	357	Manitowoc	15 1	277	2,500	9 .	277
Lake Erie		24, 985	1, 996, 224	80	1,086	Milwaukee	256 2 17	60, 624 217 3, 088	3, 123, 000 4, 000 63, 100	52 18 2 0 .	237 169 182
Buffalo	12 3	8, 779 6, 147	753, 224 515, 000	86 84 72	732 2, 049	Northport Onekama	i	63 146	7, 000 3, 500	111 : 24 ;	
Erie Toledo	7	9, 886 173	711,000 17,000	72 98	1, 412 173	Pentwater	2	260	4, 500	17	130
	!				ļ	PeshtigoPetoskey	3 1	1, 704 123	52, 500 12, 000	31 96	50) 123
St. Lawrence river	1		33,000	105	313	RacineSt. James	26 1	6, 932 81	145, 400	21 19	267 81
Clayton	1	313	33, 000	105	313	St. Joseph	2 3	164 647	1, 000 33, 500	6 52	82 216
	сомі	POSITE.				SheboyganSouth Haven	25 4	4, 115 374	79, 900 5, 100	19 14	163 94
		· — ·	1			Spring Lake Sturgeon Bay	2 2	345 550	8, 000 5, 000	23	172 273
Total	- 11	14, 756	1, 228, 000	83	- - 	Suttons Bay	1	232 336	3,000 20,000	13	336
Lake Superior	1	- 37	8, 000	216	37	Troy. Waukegan. Waukesha	1 2 1	301 1, 296 48	7, 000 58, 000 60 0	23 45 13	
Duluth	1	37	8, 000	216	37	Whitehall	2	307	4,000	13	154
Lakes Huron and St. Clair'	_ 8.	13, 233	1, 115, 000	84	1,654	Lake Erie and Niagara river.	619	318, 568 175	27, 000	154	515 44
Port Huron	7	13, 175 58	1, 100, 000 15, 000	83 259	1,882 58	AshtabulaAvonBuffaloCleveland	1 177 208	264 88, 829 143, 241	5, 000 4, 441, 900 7, 035, 800	19 50 49	354 542 689
Lake Erie	1	1, 399	90, 000	64	1, 399	Dunkirk	3 29	522 17, 068	29,000 823,900	56 , 48 .	174 500
Buffalo	1	1, 399	90, 000	64	1. 399	Fairport	5 2	316 20	17, 000 1, 800	54 90	590 63 10
ake Ontario	1	87	15, 000	172	87	Gratwick	1 12	538 5, 001	28, 000 274, 700	52 54	516 (0)
Rochester	1	87	15, 000	172	87	Lorain	17	6, 8 62 6, 824	171, 500 333, 500	25 47 38	1, 137

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TRANSPORTATION ON THE GREAT LAKES.

EQUIPMENT, OCCUPATION, AND CONSTRUCTION—Continued.

TABLE 6.—CONSTRUCTION BY MATERIALS—Continued.

	WOOD	-Continue	d.				WOOD-	-Continued	l .	•	
PORTS.	Number.	Tonnage.	Valuation.	Average valuation per ton.	Average tounage.	PORTS.	Number.	Tonnage.	Valuation.	Average valuation per ton.	Average tounage.
Lake Erie and Niagara river—Continued. Port Clinton. Put in Bay Suspension Bridge. Sandusky.	1 1 3	56 168 346 18, 303	\$5, 000 6, 000 19, 000 865, 200	\$89 36 55 47	56 168 115 286	Lake Ontario—Continued. Sodus Point Troy Wilson Youngstown	1 2	296 555 280 50	\$8,000 18,000 5,000 1,700	\$27 82 18 34	148 555 140 50
Toledo Tonawanda Vermilion	. 6	17, 854 5, 696 5, 051 15, 772	890, 300 287, 000 198, 000 661, 300	50 50 89	308 300 842	St. Lawrence river	3 6	12,517 	721, 500 5, 000 36, 500 680, 000	135 36 59	298 12 169 347
Cape Vincent Charlotte Chaumont Hamlin	1	2, 220 309 175	126, 500 6, 000 3, 000	57 19 17	43 309 175	RECAPIT	ULATIO	N—ALL M	ATERIAI	.S.	
Medina Oawego Pultneyville Rochester Sacketts Harbor	1 1 42 1 20	246 9 8, 842 80 2, 189 521	4,000 2,000 402,000 1,500 75,900 7,700	222 45 19 35 15	246 9 211 80 109 104	Total Steel. Iron Composite Wood	40 45	35, 922	48, 580, 174 7, 349, 000 3, 225, 224 1, 228, 000 36, 777, 950	53 97 90 83 46	336 1, 887 798 1, 341 301

TRAFFIC OPERATIONS.

TABLE 7.—FREIGHT MOVEMENT IN GENERAL—RECEIPTS, SHIPMENTS, AND TOTAL MOVEMENT OF FREIGHT BY LAKE AND RIVER TOTALS, CLASSED BY PRINCIPAL PRODUCTS, TOGETHER WITH CERTAIN PERCENTAGES OF TRAFFIC APPLIED TO LOCALITIES AND COMMODITIES.

SUMMARY FOR ALL LAKES AND ST. LAWRENCE RIVER.

	TOTAL :	MOVEME:	NT.	REC	CEIPTS.	:	вніг	MENTS.			OF RECE		ER ·	EXCESS O	F SHIPMI RECEIPTS	
COMMODITIES.	Amount in tons.	Per cent of total traffic.	Per cent of total commodity.	Amount in tons.	Per cent of total traffic.	Per cent of total commodity.	Amount in tons.	Per cent of total traffic.	Per cent of total commodity.	Amount in tons.	Per cent of commodity.		Per cent of ag gregate.	Amount in tons.	Per cent of commodity.	cent
Total	51, 2 03, 106	100.00	100	25, 936, 132	100.00	100	25, 266, 974	100.00	100	669, 158			2, 58	· · · · · · · · · · · · · · · · · · ·	ļ	
Class I.—Products of agriculture.	8, 449, 806	16.50	100	4, 041, 738	15. 58	100	4, 408, 068	17. 45	100				i-	366, 330	•	8.3
Wheat	1, 888, 312 3, 513, 515 980, 514 1, 886, 189 181, 276	3. 69 6. 86 1. 92 3. 68 0. 35	100 100 100 100 100	919, 162 1, 583, 901 477, 397 992, 066 69, 212	3, 54 6, 11 1, 84 3, 82 0, 27	100 100 100 100 100	969, 150 1, 929, 614 503, 117 894, 123 112, 064	3. 84 7. 64 1. 99 3. 54 C. 44	100 100 100	97, 943	9. 87			49, 968 345, 713 25, 720 42, 852	5. 16 17. 92 5. 11 38. 24	
Class II.—Products of mines and quar- ries.	27 763, 179	54. 22	100	13, 454, 189	51.88	100	14, 308, 989	56, 63	100					854, 800	· 	5.97
Coal and coke Iron ore Stone(all kinds) Salt Other products of mines and quarries.	15, 303, 180	22. 00 29. 89 1. 07 1. 07 0. 19	100 100 100 100 100	5, 162, 471 7, 626, 073 311, 015 296, 513 58, 117	19. 91 29. 40 1. 20 1. 14 0. 23	100 100 100 100 100	6, 105, 799 7, 677, 107 236, 214 252, 837 37, 032	24. 17 30. 38 0. 93 1. 00 0. 15	100 100 100 100 100	74, 801 43, 676 21, 085	14.72		 	943, 328 51, 034	15. 45 0. 66	
Class III. — Other products.	12, 331, 236	24. 09	100	6, 921, 985	26. 69	100	5, 409, 251	21.41	100	1, 512, 734		21. 85				ļ
Animal products Lumber		0. 25 23. 84	100 100	64, 728 6, 857, 257	0. 25 26. 44	100 100	60, 853 5, 348, 398	0. 24 21. 17	100 100	3, 875 1, 508, 859	5. 99 22. 00					
Class IV.—Manu- factures, miscel- laneous merchan- dise, and other commodities.	2, 658, 886	5. 19	100	1,518,220	5. 85	100	1, 140, 666	4. 51	100	377,554	24. 87			••••••	!	

LAKE SUPERIOR.

	тот	AL MOVEMENT	r .		RECEIPTS.	1		SHIPMENTS.	
COMMODITIES.	Amount in tons.	Per cent of total lake traffic.	Per cent of total com- modity traffic on the Great Lakes.	Amount in tons.	Per cent of total lake traffic.	Per cent of total com- modity traffic on the Great Lakes.	Amount in tons.	Per cent of total lake traffic.	Per cent of total com- modity traffic on the Great Lakes.
Total	7, 925, 930	100.00	15. 48	2, 491, 149	100.00	9. 60	5, 434, 781	100.00	21.51
Class I.—Products of agriculture	663, 930	8.38	7. 86	1, 886	0.08	0. 05	662, 044	12. 18	15.00
Wheat Corn Other grains Mill products All other farm products	399, 355 55, 134 1, 846 205, 720 1, 875	5. 04 0. 70 0. 02 2. 60 0. 02	21. 15 1. 57 0. 19 10. 91 1. 03	22 464 493 907	0. 02 0. 02 0. 02 0. 04	0. 10 0. 05 1. 31	399, 355 55, 112 1, 382 205, 227 968	7. 35 1. 01 0. 02 3. 78 0. 02	41.21 2.86 0.27 22.95 0.86
Class II.—Products of mines and quarries	6, 072, 985	76. 62	21.87	1, 855, 072	74. 47	13.79	4, 217, 913	77.61	3.4
Coal and coke	1, 780, 750 4, 151, 748 87, 276 20, 142 33, 069	22. 47 52. 38 1. 10 0. 25 0. 42	15. 80 27. 13 15. 95 3. 67 34. 76	1, 754, 675 10, 691 69, 587 20, 119	70, 44 0, 43 2, 79 0, 81	33. 99 0. 14 22. 37 6. 78	26, 075 4, 141, 057 17, 689 23 33, 069	0, 48 76, 20 0, 32 0, 61	0,43 53.94 7.49 0.01 80.39
Class III.—Other products	477, 981	6.03	3, 88	8. 281	0. 33	0. 12	469, 700	8. 64	a. 66
Animal products	1. 914 476, 067	0. 02 6. 01	1. 52 3. 90	371 7.910	0. 01 0. 32	0. 57 0. 12	1, 543 468, 157	0. 03 8. 61	2.53 8.73
Class IV.—Manufactures, miscellaneous merchandise, and other commodities.	711, 034	8. 97	26, 74	625, 910	25. 12	41. 23	85, 124	1.57	7.40

TABLE 7.—FREIGHT MOVEMENT IN GENERAL—Continued.

LAKES HURON AND ST. CLAIR.

	TOTA	AL MOVEMENT	· j		RECEIPTS.	į,	:	HIPMENTS.	
COMMODITIES.	Amount in tons.	Per cent of total lake traffic.	Per cent of total com- modity traffic on the Great Lakes.	Amount in tons.	Per cent of total lake traffic.	Per cent of total commodity traffic on the Great Lakes.	Amount in tons.	Per cent of total lake traffic.	Per cent of total com- modity traffic on the Great Lakes.
Total	3, 373. 807	100.00	6, 59	1, 029, 356	100.00	3. 97	2, 344, 451	100.00	9. 2
Class I.—Products of agriculture	195, 619	5. 80	2. 31	68, 553	6. 66	1. 69	127, 066	5.42	2. 8
Wheat Corn Other grains Mill products All other farm products	110, 663 38, 448 22, 479 16, 792 7, 237	3. 28 1. 14 0. 67 0. 50 0. 21	5. 86 1. 09 2. 29 0. 89 3. 99	29, 246 10, 688 16, 275 11, 963 381	2.84 1.04 1.58 1.16 0.04	3. 18 0. 68 3. 41 1. 21 0. 55	81, 417 27, 760 6, 204 4, 829 6, 856	3. 47 1. 18 0. 27 0. 21 0. 29	8. 40 1. 44 1. 23 0. 5 6. 13
Class II.—Products of mines and quarries.	665, 583	19. 73	2.40	532, 175	51. 70	3.95	133, 408	5, 69	0. 9
Coal and coke Iron ore Stone (all kinds) Salt Other products of mines and quarries	376, 321 180, 090 25, 975 78, 523 4, 674	11. 15 5. 34 0. 77 2. 33 0. 14	3. 34 1. 18 4. 75 14. 30 4. 91	362, 747 117, 639 25, 975 25, 043 771	35. 24 11. 43 2. 52 2. 43 0. 08	7. 03 1. 54 8. 35 8. 45 1. 33	13, 574 62, 451 53, 480 °, 903	0. 58 2. 66 2. 28 0. 17	0. 22 0. 8 21. 1 10. 5
Class III.—Other products	2, 426, 660	71. 92	19. 68	390, 434	37. 93	5, 69	2, 036, 226	86. 85	37.6
Animal productsLumber	175 2, 426, 485	71. 92	0, 14 19, 88	390, 434	37, 93	5. 69	175 2. 036, 051	86. 85	0. 2 38. 0
Class IV.—Manufactures, miscellaneous merchandise, and other commodities.	85, 945	2. 55	3, 23	38. 194	3, 71	2. 52	47. 751	. 2.04	4. 1

LAKE MICHIGAN.

Total	18, 571, 258	100.00	36, 27	8, 480, 892	100.00	32. 70	10, 090, 366	100, 00	39, 94
Class I.—Products of agriculture	3, 480, 217	18. 74	41. 19	152, 793	1. 79	3. 78	3, 327, 424	32. 98	75, 48
Wheat Corn Other grains Mill products All other farm products.	352, 019 1, 778, 318 500, 596 738, 833 110, 451	1. 89 9. 58 2. 70 3. 98 0. 59	18. 64 50. 61 51. 05 39. 17 60. 93	4, 553 6, 209 10, 625 118, 423 12, 983	0. 05 0. 07 0. 12 1. 40 0. 15	0. 50 0. 39 2. 22 11. 94 18. 76	347, 466 1, 772, 109 489, 971 620, 410 97, 465	3. 44 17. 56 4. 86 6. 15 0. 97	35, 85 91, 84 97, 39 69, 39 86, 98
Class II.—Products of mines and quarries.	7, 784, 066	41. 91	28. 04	4, 151, 379	48.95	30. 85	3, 632, 687	35. 99	25. 39
Coal and coke Iron ore. Stone (all kinds) Salt Other products of mines and quarries.	2, 865, 278 4, 451, 577 63, 410 399, 539 4, 262	15. 43 23. 97 0. 34 2. 15 0. 02	25. 43 29. 09 11. 59 72. 73 4. 48	2, 865, 021 1, 004, 630 51, 944 225, 582 4, 202	33. 78 11. 85 0. 61 2. 66 0. 05	55. 50 13. 17 16. 70 76. 08 7. 23	257 3, 446, 947 11, 466 173, 957 60	34. 16 0. 11 1. 72	44, 90 4, 86 68, 80 0, 16
Class III.—Other products	6, 447, 442	34. 72	52. 28	3, 552, 071	41.89	51.32	2, 895, 371	28. 70	53. 53
Animal productsLumber	6 2, 283 6, 385, 159	0. 34 34. 38	49, 60 52, 31	3, 148 3, 548, 923	0. 04 41. 85	4. 86 51. 75	59, 135 2, 836, 236	0, 59 28. 11	97. 18 53. 03
Class IV.—Manufactures, miscellaneous merchandise, and other commodities.	859, 533	4. 63	32, 33	624, 649	7. 37	41.14	234, 884	2.33	20. 59

TRAFFIC OPERATIONS—Continued.

TABLE 7.—FREIGHT MOVEMENT IN GENERAL—Continued.

			LAKE	ERIE.					
	тот.	AL MOVEMENT	· !		RECEIPTS.		-	BHIPMENTS.	·
COMMODITIES.	Amount in tons.	Per cent of total lake traffic.	Per cent of total com- modity traffic on the Great Lakes.	Amount in tons.	Per cent of total lake traffic.	Per cent of total com- modity traffic on the Great Lakes.	Amount in tons.	Per cent of total lake traffic.	Per cent of total com- modity traffic on the Great Lakes.
Total	19, 343, 875	100.00	37. 78	12, 957, 483	100.00	49. 96	6, 386, 392	100.00	25. 2
Class I.—Products of agriculture	3, 735, 845	19. 31	44. 21	3, 450, 723	26, 63	85. 38	285, 122	4.46	6.4
Wheat Corn Other grains Mill products All other farm products	978, 733 1, 493, 145 336, 684 878, 067 49, 216	5. 06 7. 72 1. 74 4. 54 0. 25	51. 83 42. 50 34. 34 46. 55 27. 15	837, 821 1, 418, 617 331, 124 814, 410 48, 751	6. 47 10. 95 2. 55 6. 28 0. 38	91. 15 89. 56 69. 36 82. 09 70. 44	140, 912 74, 528 5, 560 63, 657 465	2. 20 1. 17 0. 09 1. 00	14.5 3.8 1.1 7.1 0.4
Class II.—Products of mines and quarries.	12, 276, 929	63. 47	44. 22	6, 826, 175	52. 68	50.74	5, 450, 754	85. 35	38.0
Coal and coke	5, 294, 047 6, 517, 162 364, 380 50, 988 50, 352	27. 37 33. 69 1. 89 0. 26 0. 26	46. 98 42. 58 66. 58 9. 28 52. 92	97, 865 6, 490, 518 161, 779 25, 661 50, 352	0. 75 50. 09 1. 25 0. 20 0. 39	1, 89 85, 11 52, 02 8, 65 86, 64	5, 196, 182 26, 644 202, 601 25, 327	81. 36 0. 42 3. 17 0. 40	85. 1 0. 3 85. 7 10. 0
Class III.—Other products	2, 510, 600	12.98	20.36	2, 504, 400	19. 33	36, 18	6, 200	0. 10	: 0.1
Animal products	59, 820 2, 45 0, 780	0. 31 12. 67	47. 63 20. 08	59, 820 2, 444, 580	0, 46 18, 87	92. 42 35. 65	6, 200	0. 10	0. 1
Class IV.—Manufactures, miscellaneous merchandise, and other commodities.	820, 501	4. 24	30. 86	176, 185	1. 36	11.60	644, 316	10.09	56.4
,		4	LAKE ON	TARIO.		·' <u>-</u>		•	<i>!</i> = = = .
Total	1, 256, 947	100.00	2.45	485, 220	100.00	1.87	771, 727	100.00	3.0
Class I.—Products of agriculture	131, 046	10. 43	1.55	130, 246	26. 84	3. 22	. 800	0.11	0.0
WheatOther grains	20, 483 16, 439 89, 178	1. 63 1. 31 7. 10	1. 09 0. 47 9. 10	20, 483 16, 438 89, 178	4. 22 3. 39 18. 38	2. 23 1. 04 18. 68	i		
Mill products	4, 939	0.39	2.73	4, 140	0. 85	5.98	799	0. 11	0.7
Class II.—Products of mines and quarries.	773, 6 52	61.55	2. 79	9, 239	1. 91	0.07	764, 413	99.05	5.3
Coal and coke	771, 573	61. 38	6. 85	7, 218	1.49	0.14	764, 355	99.05	12.5
Stone (all kinds). Salt. Other products of mines and queries	1, 738 129	0. 14 0. 01 0. 02	0.32 0.02	1, 730 79	0. 36 0. 02	0. 56 0. 03	8 50		0.0

Total,	1, 200, 541	100.00	2.40	11	100, 220	100.00	1.01	111, 121	100.00	3.00
Class I.—Products of agriculture	131, 046	10. 43	1. 55		130, 246	26. 84	3. 22	800	0.11	0.02
Wheat	20, 483 16, 439 89, 178	1. 63 1. 31 7. 10	1. 09 0. 47 9. 10	•	20, 483 16, 438 89, 178	4. 22 3. 39 18. 38	2. 23 1. 04 18. 68	1		
Mill products	4, 939	0. 39	2. 73	.'	4, 140	0. 85	5. 98	799	0.11	0. 71
Class II.—Products of mines and quarries.	773, 652	61. 55	2. 79	į.	9, 239	1.91	0. 07	764, 413	99. 05	5.34
Coal and coke	771, 573	61. 38	6, 85		7, 218	1.49	0. 14	764, 355	99.05	12.52
Stone (all kinds)	1, 738 129 212	0. 14 0. 01 0. 02	0, 32 0, 02 0, 22		1, 730 79 212	0, 36 0, 02 0, 04	0. 56 0. 03 0. 36	8 50		0.02
Class III.—Other products	320, 843	25. 52	2. 60	I I	320. 831	66, 12	4. 63	12	: : !	
Animal productsLumber	601 320, 242	0, 05 25, 47	0. 48 2. 62	<u> </u>	601 320, 230	0, 12 66. 00	0. 93 4. 67	12	-	
Class IV.—Manufactures, miscellaneous merchandise, and other commodities.	31, 406	2.50	1. 18	i .	24, 904	5. 13	1.64	6, 502	0.84	. 0. 57
1	:								ŀ	

TABLE 7.—FREIGHT MOVEMENT IN GENERAL—Continued.

ST. LAWRENCE RIVER.

	TOT	AL MOVEMENT	r.		RECEIPTS.			HIPMENTS.	
COMMODITIES.	Amount in tons.	Per cent of total lake traffic.	Per cent of total commodity traffic on the Great Lakes.	Amount in tons.	Per cent of total lake traffic.	Per cent of total com- modity traffic on the Great Lakes.	Amount in tons.	Per cent of total lake traffic.	Per cent of total commodity traffic on the Great Lakes.
Total	731. 289	100.00	1.43	492, 032	100.00	1.90	239, 257	100, 00	0.95
Class I.—Products of agriculture	243, 149	33. 25	2. 88	237, 537	48, 28	5. 88	5, 612	2.34	0. 18
Wheat	27, 059 132, 031 29, 731 46, 770 7, 558	3. 70 18. 05 4. 07 6. 40 1. 03	1. 43 3. 76 3. 03 2. 48 4. 17	27, 059 131, 927 29, 731 46, 770 2, 050	5. 50 26. 81 6. 04 9. 51 0. 42	2. 94 8. 33 6. 23 4. 71 2. 96	104 5, 508	0, 04 2, 30	4.90
Class II.—Products of mines and quarries.	189, 96 3	25, 98	0.68	80, 149	16. 29	0.60	109, 814	45. 90	0.77
Coal and coke	180, 301 2, 603 4, 450	24. 60 0. 36 0. 61	1. 60 0. 02 0. 81	74, 945 2, 595	15. 23 0. 53	1. 45 0. 04	105, 356 8 4, 450	44. 04 1. 86	1. 73
SaltOther products of mines and quarries.	29 2, 580	0.35	2.71	29 2, 580	0. 53	0. 01 4. 44			ļ
Class III.—Other products	147, 710	20. 20	1. 20	145, 96 8	29.66	2. 11	1,742	0. 73	0.00
Animal productsLumber	788 14 6, 922	0. 11 20. 09	0. 63 1. 21	788 145, 180	0. 16 29. 50	1. 22 2. 12	1.742	0.73	0. α
Class IV.—Manufactures, miscellaneous merchandise, and other commodities.	150, 467	20. 57	5. 66	28, 378	5.77	1.87	122. 089	51.03	10.70

TRAFFIC OPERATIONS—Continued.

TABLE 8.—FREIGHT MOVEMENT IN GENERAL, BY PRINCIPAL PORTS—RECEIPTS, SHIPMENTS, AND TOTAL TRAFFIC MOVEMENT, GROUPED ACCORDING TO THE 13 PRINCIPAL PRODUCTS AND ALLOTTED TO THE 31 PRINCIPAL PORTS, TOGETHER WITH CERTAIN PERCENTAGES OF TRAFFIC APPLIED TO COMMODITIES, AND THE TOTAL FREIGHT MOVEMENT.

TOTAL OF ALL PRODUCTS.

* * <u></u>	• TOTAL	MOVEMENT.		RE	CEIPTS.		j sh	IPMENTS.	· <u>··</u> ·
PORTS.	Amount in tons.	Per cent of total commodity truffic.	Per cent of total port traffic.	Amount in tous.	Per cent of total commodity traffic.	Per cent of total port traffic.	Amount in tons.	Per cent of total commodity traffic	Per cent of total port traffic.
Total	51, 203, 106	100.00	100	25, 936, 132	100, 00	100	25, 266, 974	100.00](u)
Chicago (a)		15. 59 13. 14 7. 08 7. 07 5. 26	100 100 100 100 100	5, 069, 973 4, 046, 144 195, 558 2, 737, 708 2, 205, 595	19. 55 15. 60 0. 75 10. 56 8. 50	100 100 100 100 100	2, 914, 065 2, 683, 993 3, 480, 832 883, 862 489, 585	11. 53 10. 62 13. 58 3. 50 1. 94	100 100 100 100 100
Ashland Milwankee Marquette Toledo Erie	2, 247, 242 1, 935, 808 1, 710, 885 1, 436, 991	4. 39 3. 78 3. 34 2. 81 2. 48	100 100 100 100	467, 358 1, 584, 254 143, 346 506, 351 773, 0 30	1. 88 6. 11 0. 55 1. 95 2. 98	100 100 100 100 100	1, 759, 884 351, 554 1, 567, 539 930, 640 498, 958	6. 97 1. 39 6. 20 3. 68 1. 97	100 100 100 100 100
Superior Duluth Tonawanda Muskegon Fairport		2. 31 2. 18 2. 04 1. 96 1. 95	100 100 100 100 100	875, 692 383, 162 1, 046, 895 151, 303 939, 021	3. 38 2. 63 4. 04 0. 58 3. 62	100 100 100 100 100	304, 605 430, 886 851, 440 59, 438	1. 21 1. 71 3. 37 0. 24	195 100 100 100
Two Harbors. Detroit Oswego Ogdenaburg Manistee	936, 541 764, 553 691, 118 662, 904 629, 910	1. 83 1. 49 1. 35 1. 30 1. 23	100 100 100 100 100	615, 750 402, 847 470, 044 28, 096	2.37 1.55 1.81 0.11	100 100 100 100	936; 541 148, 803 288, 271 192, 860 601, 814	3. 71 0. 59 1. 14 0. 76 2. 38	160 160 160 160
Ludington Lorain Sandusky Bay city	627, 627 620, 773 602, 403 553, 219	1. 23 1. 21 1. 18 1. 08	100° 100 100 100	276, 229 346, 890 305, 029 66, 246	1. 06 1. 34 1. 18 0. 26	100 100 100 100	351, 398 273, 874 297, 374 486, 973	1. 39 1. 08 1. 18 1. 93	100 101 101 101
Oscoda Alpena Charlotte. Marinette	385, 868	0. 96 0. 76 0. 72 0. 68	100 100 100 100	11, 969 18, 318 4, 244	0. 05 0. 07 0. 02	100 100 100	490, 413 374, 899 350, 043 342, 002	1. 94 1. 48 1. 39 1. 35	100 100 100 100
Gladstone	287, 590 286, 191 272, 529 4, 073, 189	0, 56 0, 56 0, 53 7, 95	100 100 100 100	132, 356 208, 047 7, 426 1, 597, 242	0. 51 0. 80 0. 03 6. 16	100 100 100 100	155, 234 78, 144 265, 103 2, 475, 947	0. 61 0. 31 1. 05 9. 80	100 104 104 104

a Including South Chicago.

TABLE 8.—FREIGHT MOVEMENT IN GENERAL, BY PRINCIPAL PORTS—Continued.

A.-PRODUCTS OF AGRICULTURE.

				AGG	GREGATE.				
	Total	movement.		Re	eceipts.		Shi	pments.	
PORTS.	Amount in tons.	Per cent of total product of agriculture traffic.	Per cent of total port traffic.	Amount in tons.	Per cent of total product of agriculture traffic.	Per cent of total port traffic.	Amount in tons.	Per cent of total product of agriculture traffic.	Per cent of total port traffic.
Total	8. 449, 806	100.00	16. 50	4, 041, 738	100.00	15. 58	4, 408, 068	100.00	 17. 45
Chicago (a)	2, 829, 895 3, 132, 433	33. 49 37. 07	35. 45 46. 54	10, 854 3, 132, 433	0. 27 77. 50	0. 21 77. 42	2. 819, 041	63. 95	96. 74
Escanaba	4.543	0, 05 0, 30	0. 13 0. 70	35 24, 649	0. 61	0. 02 0. 90	4, 508 791	0. 10 0. 02	0. 13 0. 09
AshlandMilwaukee	348.782	4. 13	18.02	120		0. 01	348, 662	7. 91	99, 18
Marquette	275, 532 293, 641	3. 26 3. 48	19. 17 23. 08	293, 641	7. 27	37. 99	275, 532	6, 25	29. 61
Superior Duluth Tonawanda	292. 410 362. 889	3. 46 4. 30	24. 77 32. 57				292, 410 362, 889	6. 64 8. 23	96, 00 84, 22
MuskegonFairport	5, 327	0.06	0.53	5, 327	0. 13	3.52		'	
Two Harbors Detroit Oswego Ogdensburg Manistee	121, 832 116, 068 242, 456 6, 208	1. 44 1. 37 2. 87 C. 07	15. 94 16. 79 36. 57 0. 98	7, 148 116, 068 237, 332 6, 196	0. 18 2. 87 5. 87 0, 15	1. 16 28. 81 50. 49 22. 05	114, 684 5, 124 12	2. 60 0. 12	77. 07 2. 66
Ludington	61, 288	0. 73	9. 76	61, 288	1. 52	22. 19		 	Í
Sandueky	8,063	0. 10	1.34				8, 063	0.18	2. 71
Oecoda	94 5, 144 5, 406 16	0, 06 0, 06	0. 02 1. 33 1. 47	5, 144 5, 406 16	0. 13 0. 14	42. 98 29. 51 0. 38	94		0.02
Gladstone	72, 354	0. 86	25. 16				72, 354	1.64	46.61
Menominee. All other ports.	239, 897	2.84	0. 03 5. 89	80 135, 993	3.36	1.08 8.51	103, 904	2, 36	4. 20

				. w	HEAT.				•
PORTS.	Total :	novement.		Re	ceipts.		Shi	pments.	
ivais.	Amount in tons.	Per cent of total wheat traffic.	Per cent of total port traffic.	Amount in tons.	Per cent of total wheat traffic.	Per cent of total port traffic.	Amount in tons.	Per cent of total wheat traffic.	Per cent of total port traffic.
Total	1, 888, 312	100.00	3, 69	919, 162	100.00	3. 54	969, 150	100.00	3. 84
Chicago (a)	312, 203 781, 548	16. 53 41. 39	3. 91 11. 61	781, 548	85. 03	19. 32	312, 203	32. 21	10.71
Escànaba	22, 494	1. 19	0,62	22, 494	2. 45	0.82			
AshlandMilwaukee	29, 191	1. 55	1.51	11	 	 	29, 191	3. 01	8.30
Toledo Brie	132, 363 33, 779	7. 01 1. 79	9. 21 2. 65	33, 779	3. 67	4.37	132, 363	13.66	14. 22
Superior Duluth Tonawanda		10. 15 11. 00	16. 23 18. 64		•••••		191, 623 207, 732	19. 77 21. 44	62. 91 48. 21
MuskegonFairport	1	0, 04	0.07	692	0. 08	0.46			
Two Harbons Detroit Oswego Ogdensburg Manistee	82, 576 19, 297 27, 058	4. 37 1. 02 1. 43	10, 80 -2, 79 4, 08	1, 819 19, 297 27, 058	0. 20 2. 10 2. 94	0.30 4.79 5.76	80, 757		54. 27
Ludington Lorain Sandusky Bay city	8, 063	0.43	1.34	· · · · · · · · · · · · · · · · · · ·			8, 063	0. 83	2.71
Oscoda Alpena Charlotte					<i></i>				
Marinette Gladatone Houghton	1.500	0, 08	0, 52	·			1,500	0. 16	0. 97
Menominee All other ports	.1 ;	2. 02	0.94	32, 475	3. 53	2. 03	5, 718	0. 59	0. 23

TRAFFIC OPERATIONS—Continued.

TABLE 8.—FREIGHT MOVEMENT IN GENERAL, BY PRINCIPAL PORTS—Continued.

A.-PRODUCTS OF AGRICULTURE-Continued.

	CORN.											
	Total	movement.		Re	ceipts.		Shi	pments.				
РОВТВ.	Amount in tons.	Per cent of total corn traffic.	Per cent of total port traffic.	Amount in tons.	Per cent. of total corn traffic.	Per cent of total port traffic.	Amount in tons.	Per cent of total corn traffic.	Per cent of total port traffic.			
Total	3, 513, 515	100.00	6. 86	1, 583, 901	100. 00	6. 11	1, 929, 614	100.00	7.6			
Chicago (a)Buffalo		50. 37 37. 56	22. 17 19. 60	1, 319, 560	83, 31	32. 61	1, 769, 621	91.71	60.7			
Escanaba Cleveland Ashtabula	1, 010	0. 03	0.03	434	0. 03	0.02	576	0.03	0.0			
Ashland	1, 434	0.04	0.08				1, 434	0. 07	0.4			
farquette Coledo Grie	73, 952 98, 623	2. 11 2. 81	5. 14 7. 75	98, 623	6, 23	12.76	73, 952	3.83	7.9			
Superior	5, 211 49, 901	0. 15 1. 42	0. 44 4. 48				5, 211 49 , 901	0. 27 2. 59	1.7			
Conawanda duskegon Sairport	2, 608	0. 07	0. 26	2, 608	0. 16	1.72						
Two Harbors	31, 778 16, 434 131, 907 217	0. 90 0. 47 8. 75 0. 01	4. 16 2. 38 19. 90 0. 03	4, 242 16, 434 131, 907 217	0. 27 1. 04 8. 33 0. 01	0. 69 4. 08 28. 06 0. 77	27, 536	1.43	18.5			
udington .orain andusky lay city				163	0. 01	0.06						
mooda Alpena Alpenite	168			168	0. 01	1.40						
ladstone loughton fenominee		; ! !							<u> </u>			
all other ports	10,920	0. 31	0. 27	9,537	0. 60	0. 60	1, 383	0.07	0.0			

				отн	er' grains.				
, PORTS.	Total	movement.		Re	eceipts.		Sh	ipmen ts .	
PURTS.	Amount in tons.	Per cent of total other grain traffic.	Per cent of total port traffic.	Amount in tons.	Per cent of total other grain traffic.	Per cent of total port traffic.	Amount in tons.	Per cent of total other grain traffic.	Per cent of total port traffic.
Total	980, 514	100.00	1. 92	477, 397	100.00	1.84	503, 117	100.00	1.99
Chicago (a) Buffalo Escanaba	457, 095 316, 987	46. 62 32. 33	5. 78 4. 71	316, 987	66. 40	7.83	457, 095	90. 85	15. ●
Cleveland	685	0.07	0. 02	685	0. 14	0.02			
Asbland	28, 847	2. 94	1. 49		,	; 	28, 847	5.73	8.21
Toledo Brie	5, 560 13, 452	0. 57 1. 37	0.39 1.06	13, 452	2, 82	1.74	5, 560	1.11	0.00
Superior	1,304	0. 13	0. 12			\	1, 304	0. 26	0.20
MuskegonFairport	1, 840	0. 19	0. 18	1, 840	0.39	1. 22			
Two Harbors Detroit. Owvego Ogdensburg. Manistee	2, 850 78, 340	0. 29 7. 99 3. 02 0. 12	0. 37 11. 33 4. 46 0. 19	940 78, 340 29, 581 1, 193	0. 20 16. 41 6. 20 0. 25	0. 15 19. 45 6. 29 4. 25	1,910	• • • • • • • • • • • • • • • • • • •	1.28
Ludington		0. 10	1	965	0. 20	0.35			
Oscoda Alpena Charlotte Marinette	64 4,976 5,406	0. 51 0. 55	0. 01 1. 29 1. 47	4, 976 5, 406 16	1.04 1.13	41. 58 29. 51 0. 38	64		0.01
Gladstone	·								
All other ports.		3. 20	0.77	23, 016	4. 82	1.44	8, 337	1.66	0.24

TABLE S.—FREIGHT MOVEMENT IN GENERAL, BY PRINCIPAL PORTS—Continued.

A.—PRODUCTS OF AGRICULTURE—Continued.

		-		MILL .	PRODUCTS.				
PORTS.	Total	movement.		· R	eceipts.		Sh	ipments.	
1 0 2 1 5	Amount in tons.	Per cent of total mill product traffic.	Per cent of total port traffic.	Amount in tons.	Per cent of total mill product traffic.	Per cent of total port traffic.	Amount in tons.	Per cent of total mill product traffic.	Per cent of total port traffic.
Total	1, 886, 189	100.00	3. 68	992, 066	100.00	3. 82	894, 123	100.00	3. 54
hicago (a)	229, 998	12. 19	2. 88	1, 860	0. 19	0, 03	228, 138	25. 52	7. 83
uffaloscanaba	666, 651	35, 35	9. 91	666, 651	67. 20	16.48	II		
leveland	4, 543 252	0. 24 0. 01	0. 13	35 252	0.03	0. 02 0. 01	4, 508	0.50	0. 13
.shtabulashland									
[ilwaukee	289, 174	15.33	14.93				289, 174	32. 34	82. 26
arquetteoledo	63, 657	8.38	4.43				63, 657	7. 12	6, 84
rie	147, 507	7.82	11.60	147, 507	14.87	19.08			
aperioraluth	. 95, 576 . 103, 134	5. 07 5. 47	8. 10 9. 26		• • • • • • • • • • • • • • • • • • •		95, 576 103, 134	10. 69 11. 54	31. 37 23. 94
onawanda	. 33	, 	• • • • • • • • • • • • • • • • • • • •	33		0.02	h		
airport					••••				
wo Harborsetroit	999		0. 13				999	0.11	0.67
swego	46, 770	2.48	7.05	. 46, 770	4 70	9. 95			
gdensburg	3,078	0.16	0.49	3,078	4. 72 0. 31	10. 95			
udington	. 60, 160	3. 19	9. 58	60, 160	6.06	21.78			
orain		` '		` 		· · · · · · · · · · · · · · · · · · ·			
lay city	1			•••••	• • • • • • • • • • • • • • • • • • • •	• • • • • • • • • • • • • • • • • • • •	j		!
scoda									
harlotte		,							
iladstone	70, 854	3, 76	24.64				70, 854	7.92	45, 64
loughton								ļ	
fenominee		5. 50	2.55	65, 720	6.62	4.11	38, 083	4. 26	1.54
	Total	movement.		R	eceipts.		Sh	ipments.	
PORTS.	Amount in tons.	Per cent of total other farm prod- uct traffic.	Per cent of total port traffic.	Amount in tons.	Per cent of total other farm prod- uct traffic.	Per cent of total port traffic.	Amount in tons.	Per cent of total other farm product traffic.	Per cent of total port traffic.
Total	181, 276	100.00	0. 85	69, 212	100.00	0. 27	112, 064	100. 00	0. 44
Chicago (6)	60, 978	33. 64	0.76	8, 994	13.00	0. 18	51, 984	46. 39	1. 78
Buffalo	47, 687	26. 31	0.71	47, 687	68. 90	1. 18			
leveland	. 999	0.55	0.03	784	1. 13	0.03	215	0. 19	0.02
Ashtabula Ashland					I				
filwaukee	. 136	0.08	0.01 .	120	0.17	0.01	16	0. 01	
`oledo									
irie	. 280	0. 15	0.02	280	0.40	0.04			
uperior Duluth		0.45	0.07		! • • • • • • • • • • • • • • • • • • •	'	818	0. 73	0. 19
onawanda	154	0,08	0, 02	154	0. 22	0. 10			
Inekegon			J						
'airport		;		11					ľ
'airport 'wo Harbors		2 00	0.48	147	0.21	0.02	3 482	3 11	2 34
airport. wo Harbors etroit. swego	3, 629 1, 997	2.00 1.10	0. 48 0. 29	147 1, 997	0, 21 2, 89	0. 02 0. 49	3, 482	3. 11	2. 34
airport. 'wo Harbors betroit. iswego gdensburg	3, 629 1, 997 7, 140			147 1,997 2,016 1,708	0, 21 2, 89 2, 91 2, 47	0, 02 0, 49 0, 43 6, 08	3, 482 5, 124 12	3. 11 4. 57 0. 01	2. 34 2. 66
airport. wo Harbors betroit. swego gdensburg fanistee. udington	3, 629 1, 997 7, 140 1, 720	1. 10 3. 94 0. 95	0. 29 1. 08	1,997	2. 89 2. 91	0.43	5, 124	4.57	' .
airport. we Harbors eletroit. swego gdensburg fanistee orain	3, 629 1, 997 7, 140 1, 720	1. 10 3. 94	0. 29 1. 08	1,997	2. 89 2. 91	0.43	5, 124	4.57	' .
airport. wo Harbors etertoit. swego gdensburg anistee. udington orain anduwky ay city	3, 629 1, 997 7, 140 1, 720	1, 10 3, 94 0, 95	0. 29 1. 08 0. 27	1,997	2. 89 2. 91	0.43	5, 124 12	4. 57 0. 01	2.66
airport. wo Harbors letroit. swego gdensburg lanistee. udington orain andusky ay city scoda.	3,629 1,997 7,140 1,720	1. 10 3. 94 0. 95	0. 29 1. 08	1,997	2. 89 2. 91	0.43	5, 124	4.57	' .
airport. wo Harbors betroit. swego gdensburg lanistee. udington orain andusky av city seeda lpena harlotte	3, 629 1, 997 7, 140 1, 720	1, 10 3, 94 0, 95	0. 29 1. 08 0. 27	1,997	2. 89 2. 91	0.43	5, 124 12	4. 57 0. 01	2.66
airport wo Harbors betroit betroit fanistee uddington orain andusky ay city seeda ilpena harlotte larinette	3, 629 1, 997 7, 140 1, 720	1, 10 3, 94 0, 95	0. 29 1. 08 0. 27	1,997	2. 89 2. 91	0.43	5, 124	4. 57 0. 01	2.66
fuskegon Fairport. Cwo Harbors Detroit. Swego gleinsburg fanisteeudingtonorainandusky Say city Say city Sheoda Alpena Charlotte darinette Gladstone Goughton	3, 629 1, 997 7, 140 1, 720	1, 10 3, 94 0, 95	0. 29 1. 08 0. 27	1,997	2. 89 2. 91	0.43	5, 124	4. 57 0. 01	2.66

TRAFFIC OPERATIONS—Continued.

TABLE \$.— FREIGHT MOVEMENT IN GENERAL, BY PRINCIPAL PORTS — Continued.

B.—PRODUCTS OF MINES AND QUARRIES.

				AGG	REGATE.				
	Total	movement.		R	eceipts.		Shi	ipments.	
PORTS.	Amount in tons.	Per cent of total mine and quarry traffic.	Per cent of total port traffic.	Amount in tons.	Per cent of total mine and quarry traffic.	Per cent of total port traffic.	Amount in tons.	Per cent of total mine and quarry traffic.	Per cent of total port traffic.
Total	27, 763, 178	100.00	54. 22	13, 454, 189	100.00	51.88	14. 308, 989	100.00	56. 63
Chicago (a). Buffalo . Escanaba . Cleveland	2, 209, 284 2, 568, 035 3, 558, 620 2, 951, 439 2, 690, 944	7. 96 9. 25 12. 82 10. 63 9. 69	27. 67 38. 16 98. 13 81. 50 90. 84	2, 209, 276 386, 066 194, 521 2, 092, 187 2, 201, 359	16. 42 2. 87 1. 44 15. 55 16. 36	43. 58 9. 54 99. 47 76. 42 99. 81	8 2, 181, 969 3, 364, 099 859, 252 489, 585	15. 25 23. 51 6. 01 3. 42	81.30 98.06 97.22 100.00
Ashland Milwaukee Marquette Toledo Brie	1, 867, 712 1, 107, 543 1, 680, 991 863, 488 835, 910	6.73 3.99 6.05 3.11 3.01	83, 11 57, 21 98, 20 60, 09 65, 72	204, 691 1, 107, 543 138, 596 213, 488 425, 507	1. 52 8. 23 1. 03 1. 59 3. 16	42. 00 69. 91 96. 69 42. 16 55. 04	1, 663, 021 1, 541, 495 650, 000 410, 403	11. 62 10. 77 4. 54 2. 87	94, 54 98, 34 69, 84 82, 25
Superior Duluth Tonawanda Muskegon Fairport	733, 506 538, 916 17, 166 15, 733 900, 124	2. 64 1. 94 0. 06 0. 06 3. 57	62. 15 48. 38 1. 64 1. 57 99. 17	726, 537 538, 916 17, 166 15, 733 930, 686	5. 40 4. 00 0. 13 0. 12 6. 92	82. 97 78. 89 1. 64 10. 40 99. 11	6, 969 59, 438	0. 05	2. 2
Two Harbors. Detroit. Oswego Ogdensburg. Manistee	936, 541 287, 277 282, 148 136, 754 114, 188	3. 37 1. 03 1. 02 0. 50 0. 41	100. 00 37. 57 40. 83 20. 63 18. 13	280, 675 71, 398 9, 187	2. 09 0. 53 0. 07	45. 58 15. 19 32. 70	936, 541 6, 602 282, 148 65, 356 105, 001	6. 55 0. 05 1. 97 0. 46 0. 73	100.00 4.44 97.85 33.81 17.44
Ludington Lorain Sandusky Bay city	61, 804 613, 704 504, 188 67, 423	0. 22 2. 22 1. 82 0. 24	9, 85 98, 86 83, 70 12, 19	4, 583 340, 033 214, 877 62, 046	0. 03 2. 53 1. 60 0, 46	1. 66 98. 02 70. 44 93. 66	57, 221 273, 671 289, 311 5, 377	0. 40 1. 91 2. 02 0. 04	16. 2 99. 9 97. 2 1. 10
Oscoda Alpena Charlotte Marinette	322 6, 825 350, 000 2, 999	0. 02 1. 26 0. 01	0. 07 1. 76 95. 01 0. 87	6, 825 2, 957	0, 05	57. 02 69. 67	322 350, 000 42	2. 45	0. 0 99, 94 9. 0
Gladstone	208, 940 235, 187 1, 346	0. 75 0. 85	72. 65 82. 18 0. 49	126, 060 166, 523 1, 346	0. 94 1. 24 0. 01	95. 24 80. 04 18. 12	82, 880 68, 664	0, 58 0, 48	53, 31 87, 8
All other ports	1, 325, 021	4.77	32. 53	765, 407	5. 69	47.92	559, 614	3. 91	22. 6

	•			COAL	AND COKE.				-
	Total	movement.		R	eceipts.		Sb	pments.	
PORTS.	Amount in tons.	Per cent of total coal and coke traffic.	Per cent of total port traffic.	Amount in tons.	Per cent of total coal and coke traffic.		Amount in tons.	Per cent of total ceal and coke traffic.	Per cent of total port traffic.
Total	11, 268, 270	100.00	22. 01	5, 162, 471	100.00	19. 91	6, 105, 799	100.00	24.17
Chicago (a) Buffalo Bacanaba Cleveland Ashtabula	1, 329, 364 2, 156, 670 194, 199 826, 230 489, 585	11. 80 19. 14 1. 72 7. 33 4. 35	16. 65 32. 05 5. 36 22. 82 18. 17	1, 329, 364 194, 199 1, 200	25. 75 3. 76 0. 02	26. 22 99. 30 0. 04	2, 156, 670 825, 030 489, 585	35. 32 13. 52 8. 02	93. 34 100. 60
Ashland Milwaukee Marquette Toledo Erie	201, 241 907, 743 126, 421 743, 369 410, 403	1. 79 8. 06 1. 12 6. 60 3. 64	8, 96 46, 89 7, 39 51, 73 32, 27	201, 241 907, 743 126, 421 93, 369	3, 90 17, 58 2, 45 1, 81	41. 29 57. 30 88. 19 18. 44	650, 000 410, 403		69. 84 82. 25
Superior Duluth Tonawanda Muskegon Fairport		6. 39 4. 30 0. 03 0. 53	61.00 43.54 0.36 5.95	720, 000 485, 000 3, 620	13, 95 9, 39 0, 07	82. 22 70. 99 2. 39	59, 438	0.97	100.90
Two Harbors. Detroit Oswego Ogdensburg Manistee	145, 464 282, 098	1. 29 2. 50 1. 17 0: 08	19. 02 40. 82 19. 85 1. 46	141, 900 66, 231 9, 187	2. 75 1. 28 0. 18	23. 04 14. 09 32. 70	3, 564 282, 098 65, 356	0.06 4.62 1.07	2.40 97.86 33.89
Ludington Lorain Sandusky Bay city	278, 671 276, 946	0. 04 2. 43 2. 46 0. 45	0, 73 44, 08 45, 98 9, 22	4, 583 1, 561 51, 000	0, 09 0, 03 0, 99	1, 66 0, 51 76, 98	273, 671 275, 385	4. 48 4. 51	90, 93 92, 60
Oscoda	6, 000 350, 000 2, 870	0, 0 5 3, 11 0, 03	1. 55 95. 01 0 83	6, 000 2, 870	0. 12	50. 13 67. 62	350, 000	5. 73	99.90
Gladstone Houghton Menominee All other porta		1. 08 1. 50 0. 01 7. 00	42. 42 59. 17 0. 42 19. 37	122, 000 144, 261 1, 150 549, 571	2. 36 2. 79 0. 02 10, 65	92. 17 69. 34 15. 48 34. 41	25, 075 239, 524	0. 41 3. 92	82. 00 9. 67

a Including South Chicago.

TABLE 8.—FREIGHT MOVEMENT IN GENERAL, BY PRINCIPAL PORTS-Continued.

B.—PRODUCTS OF MINES AND QUARRIES—('ontinued.

	i			IRC	ON ORE.				
PORIS.	Total	movement		Re	eceipts.		Shi	pments.	
Ivais.	Amount in tons.	Per cent of total iron ore traffic.	Per cent of total port traffic.	Amount in tons.	Per cent of total iron ore traffic.	Per cent of total port traffic.	Amount in tons.	Per cent of total iron ore traffic.	Per cent of total port traffic.
Total	15, 303, 180	100.00	29.89	7, 626, 073	100.00	29.40	7, 677, 107	100.00	30. 38
Chicago (a)	731, 188 333, 827 3, 364, 067	4. 78 2. 18 21. 98	9. 16 4. 96 92. 77	731, 188 333, 827	9. 59 4. 38	14. 42 8. 25	3, 364, 067	43. 82	98.06
Cleveland	1, 978, 208 2, 199, 109	12. 93 14. 37	54. 62 81. 59	1, 951, 564 2, 199, 109	25. 59 28. 84	71. 28 99. 71	26, 644	0.34	3. 02
Ashland	1, 663, 021 124, 312 1, 541, 495	· 10, 87 0, 81 10, 07	74. 00 6. 42 90. 10	124, 312	1. 63	7. 85	1, 663, 021 1, 541, 495	21. 66	94. 50 98. 34
Toledo Erie	97, 476 418, 426	0. 64 2. 73	6. 78 32. 89	97, 476 418, 426	1. 28 5. 4 9	19. 25 54. 12		20.00	
Superior Duluth Tonawanda	17, 166	0. 07 0. 11	0.96 ·1.64	10, 691 17, 166	0. 14 0. 22	1.57 1.64			
MuskegonFairport	928, 616	6. 07	93. 01	928, 616	12. 18	98. 89			
Two Harbors Detroit Oewego	119, 403	6. 12 0. 78	100.00 15.62	117, 247	1.54	19. 04	936, 541 2, 156	12. 20 0. 03	100.00 1.48
Ogdensburg	2, 587	0.02	0.39	2, 587	0, 03	0. 55			
Ludington Lorain Sendusky Bay city	335, 162 208, 411	2. 19 1. 36	54.00 34.60	335, 162 208, 411	4. 39 2. 73	96, 62 68, 33			
Oscoda	28		0. 01				28		0.01
Marinette	82, 880	0.54	28. 82				82, 880	1. 08	53. 30
HoughtonMenomineoAll other ports		1.38	5. 17	150, 291	1.97	9. 41	60, 275	0. 79	2. 43

	STONE (ALL KINDS).								
	Total	movement.		R	eceipts.	•	Sh	ipments.	
PORTS.	Amount in tons.	Per cent of total atone traffic.	Per cent of total port traffic.	Amount in tons.	Per cent of total stone traffic.	Per cent of total port traffic.	Amount in tons.	Per cent of total stone traffic.	Per cent of total port traffic.
Total	547, 229	100.00	1. 07	311,015	100.00	1. 20	236, 214	100. 00	0. 95
Chicago (a)		3, 32 1, 66 0, 05	0. 23 0. 13	18, 176 9, 060 288	5. 85 2. 91 0. 09	0. 36 0. 22 0. 15			!
Cleveland	138. 327 2, 250	25. 28 0. 41	3. 82 0. 08	130, 777 2, 250	42. 05 0. 72	4. 78 0. 10	7, 550	3, 20	0.80
Ashland. Milwaukee Marquette Toledo Erie	3, 262 11, 951 12, 822	0. 60 2. 18 2. 34	0. 17 0. 70 0. 89	3, 262 11, 951 12, 822	1. 05 3. 84 4. 12	0. 20 8. 34 2. 53			
Saperior	35, 374	6.46	3. 17	 : 35, 374	11. 37	5. 18		ļ	
Tonawauda Muskegon Fairport	12, 113 2, 070	2. 21 0. 38	1. 21 0. 21	12, 113 2, 070	3. 90 0. 67	8. 01 0. 22			
Two Harbors. Detroit (bawego ()gdensburg Manistee								 	
Ludington	4,800 13,926	0. 88 2. 55	0. 77 2. 31	4,800	1.54	1. 38	13.926	5, 89	4.0
Bay city	11,000	2. 01	1.90	11,000	3. 54	16. 61	!	j	
Oscoda Alpena Charlotte Marinette			0.15	600	0. 19	5. 01			
Gladstone	39, 951	7. 30	13.96	22, 262	7. 16	10. 70	17, 689	7. 49	22. 6
Menominee		42. 26	5. 68	34, 210	11.00	2. 14	197, 049	83. 42	7.90

TRAFFIC OPERATIONS—Continued.

TABLE S.—FREIGHT MOVEMENT IN GENERAL, BY PRINCIPAL PORTS—Continued.

B.—PRODUCTS OF MINES AND QUARRIES—Continued.

				!	SALT.				
PORTS.	Total	movement.		Re	eceipts.		Sh	ipments.	
. IVALS.	Amount in tons.	Per cent of total salt traffic.	Per cent of total port traffic.	Amount in tons.	Per cent of total salt traffic.	Per cent of total port traffic.	Amount in tons.	Per cent of total salt traffic.	Per cen of tota port traffic.
Total	549, 350	100.00	1. 07	296, 513	100.00	1.14	252, 837	100.00	1.6
Chicago (a)	128, 956	23. 47	1. 61	128, 948	43. 49	2. 55	8		
Buffalo	25, 299	4. 61	0. 38				25, 299	10.01	0.1
Escanaba	66 8, 674	0. 01 1. 58	0. 24	34 8, 64 6	0, 01 2, 92	0. 02 0. 32	32 28	0. 01 0. 01	
Ashland Milwaukee Marquette Colodo Brie	3, 450 71, 944 224 9, 729	0. 63 13. 10 0. 04 1. 77	0. 15 3. 72 0. 01 0. 68	3, 450 71, 944 224 9, 729	1. 10 24. 26 0. 08 3. 28	0. 71 4. 54 0. 16 1. 92			
Superior Duluth Fonawanda Muskegon Fairport	7, 851	1. 19 1. 43	0. 56 0. 71	6, 537 7, 851	2. 20 2. 65	0. 75 1. 15			
•	i		j		-				1
Fwo Harbors Detroit Dewego	22, 410 50	4. 08 0. 01	2. 93 0. 01	21,528	7. 26	3.50	882 50	0. 35 0. 02	0. Q.
)gdensburg	105, 001	19. 11	16, 67				105,001	41.53	17.
Ludington	· ·	10. 42 0. 01	9. 12	71	0.02	0.02	57, 221	22. 63	16.
Sandusky	4, 905	0.89	0. 01 0. 81	4, 905	1.65	1.60			
Bay city	5, 377	0.98	0. 97		· · · · · · · · · · · · · · · · · · ·		5, 377	2. 13	1.1
Scoda		0. 05	0.06				294	0.11	0.0
Charlotte	129	0. 02	0.04	87	0.03	2.05	42	0.02	0.0
Pladstone		0.74	1.41	4,060	1. 37	3. 07		 	
denominee	196 86, 906	0, 04 15. 82	0. 07 2. 13	196 28, 303	0. 07 9. 55	2.64 1.77	58, 608	23. 18	2.1

			(OTHER PRODUCTS O	F MINES AND	QUARRIES	3 .		
PORTS.	Total	movement.		. R	ecelpts.		Sh	ipments.	
ronio.	Amount in tons.	Per cent of total other product traffic.		Amount in tons.	Per cent of total other product traffic.		Amount in tons.	Per cent of total other product traffic.	Per cent of total port traffic.
Total	95, 149	100. 60	0. 18	58, 117	100.00	0. 23	37, 032	100.00	0.15
Chicago (6) Ruffalo Rscanaba Cleveland Ashtabula				1, 600 43, 179	2. 75 74. 30				
Ashland Milwaukee Marquette Toledo	282	0. 30 0. 10	0. 01	282 92	0.48	0. 02 0. 02			
Erie Superior Duluth Tonawapda	6, 969	7. 44 7. 32	0. 56 0. 59	7, 081				18. 82	2.29
MuskegonFairport									
Two Harbors. Detroit Oswego Ogdensburg.									
Manistee Ludington Lorain	• • • • • • • • • • • • • • • • • • • •	· · · · · · · · · · · · · · · · · · ·							
Sandusky Bay city Oscoda	46	0. 05	0. 01	46	1	0. 07			
Alpena Charlotte Marinette	225		0, 06	225		1.88			
Gladstone	25, 900	27. 22	9. 05				25, 900	69. 94	88.14
All other ports		7. 56	0. 18	3, 032	5. 22	0. 19	4, 163	11.94	0.17

a Including South Chicago.

TABLE 8.-FREIGHT MOVEMENT IN GENERAL, BY PRINCIPAL PORTS-Continued.

C.—OTHER PRODUCTS.

				AGC	REGATE.				
PORTS.	Total	movement.		Re	eceip ts .		Shi	ipments.	
•	Amount in tons.	Per cent of total other product traffic.	Per cent of total port traffic.	Amount in tons.	Per cent of total other product traffic.	Per cent of total port traffic.	Amount in tons.	Per cent of total other product traffic.	
Total	14, 990, 122	100.00	29. 28	8, 440, 205	100,00	32. 54	6, 549, 917	100.00	25. 92
Chicago (a)	2, 944, 859	19. 65	36. 88	2, 849, 843	33. 77	56. 21	95, 016 502, 024	1.45	3. 20
Recanaba Cleveland Ashtabula	1, 029, 669 63, 227 644, 691 4, 236	6. 87 0. 42 4. 30 0. 03	15. 30 1. 74 17. 80 0. 16	527, 645 1, 002 620, 872 4, 236	6. 25 9. 01 7. 36 0. 05	13. 04 0. 51 22. 68 0. 19	62, 225 23, 819	7. 67 0. 95 0. 36	18. 70 1. 81 2. 69
Ashland Milwaukee Marquette Toledo Erie	379, 530 479, 483 30, 786 297, 971 142, 437	2. 53 3. 20 0. 20 1. 99 0. 95	16. 89 24. 77 1. 80 20. 74 11. 20	282, 667 476, 591 4, 742 292, 863 53, 882	3. 35 5. 65 9. 06 3. 47 0. 64	58. 00 30. 08 3. 31 57. 84 6. 97	96, 863 2, 892 26, 044 5, 108 88, 555	1. 48 0. 04 0. 40 0. 08 1. 35	5. 50 0. 82 1. 60 9. 55 17. 75
Saperior Duluth. Tonawanda Muskegou Fairport	154, 381 212, 243 1, 029, 729 981, 683 8, 335	1. 03 1. 42 6. 87 6. 55 0. 05	13. 08 19. 05 98. 36 97. 90 0. 83	149, 156 144 246 1, 029, 729 130, 243 8, 335	1. 77 1. 71 12. 20 1. 54 0. 10	17. 03 21. 11 98. 36 86. 08 0. 89	5, 226 67, 997 851, 440	0. 08 1. 04	1. 71 15. 78 100. 00
Two Harbors Detroit. Dewego Ogdensburg. Manistee	355, 444 292, 902 283, 694 509, 514	2. 37 1. 95 1. 80 3. 40	46, 49 42, 38 42, 80 80, 89	327, 927 286, 779 161, 314 12, 713	3. 89 3. 40 1. 91 0. 15	53. 26 71. 19 34. 32 45. 25	27, 517 6, 123 122, 380 496, 801	0. 42 0. 09 1. 87 7. 59	18. 49 2. 12 63. 45 82. 55
LudingtonLorain	504, 535 7, 069 90, 152	3. 37 0. 05 0. 60	80. 39 1. 14 14. 96	210, 358 6, 866 90, 152	2. 49 0. 08 1. 07	76. 15 1. 98 29. 56	294, 177 203	4.49	83. 72 0. 07
SanduskyBay city	485, 796	3. 24	87. 81	4, 200	0.05	6.34	481,596	7.35	98.90
Oscoda Alpena Charlotte Marinette	489, 997 374, 899 12, 955 343, 231	3. 27 2. 50 0. 09 2. 29	99. 91 96. 91 3. 52 99. 13	12, 912 1, 271	0. 15 0. 01	70. 49 29. 95	489, 997 374, 899 43 341, 960	7. 48 5. 72 5. 22	99. 91 100. 00 0. 01 99. 90
Gladstone. Houghton Menominee All other ports.	6, 296 51, 004 271, 103 2, 508, 271	0. 04 0. 34 1. 81 16. 73	2. 19 17. 82 99. 48 61. 58	6, 296 41, 524 6, 000 695, 842	0. 07 0. 49 0. 07 8. 24	4. 76 19. 96 80. 80 43. 57	9, 480 265, 103 1, 812, 429	0. 15 4. 05 27. 67	12. 13 100. 00 73. 20
-	<u></u>	1		 IAMINA	L PRODUCTS.			1	
	Total	movement.		. R	eceipts.		. Shi	ipmen ts .	
PORTS.	Amount in tons.	Per cent of total ani- mal product traffic.	of total	Amount in tons.	Per cent of total ani- mal product traffic.	of total	Amount in tons.	Per cent of total ani- mal product traffic.	of total
Total	125, 581	100.00	9. 25	64, 728	100.00	0. 25	00, 853	100.00	0. 24
Chicago (a) Buffalo	56, 131 59, 820	44. 70 47. 63	0. 70 0. 89	146 59, 820	0. 22 92. 42	1.48	55, 985	92. 00	1. 92
Escanaba Cleveland Ashtabula	34	0.03					34	0.06	
Asbland Milwaukee Marquette Toledo	2, 366		0. 12	72			2, 294	3.77	0. 65
Erie Superior	1, 321	1.05	•••••				1, 321	2. 17	0. 43
Duluth Tonawanda Muskegon Fairport	963	0. 77	0. 10	963	1. 49	0.64			
Two Harbors Detroit Oswego Ogdensburg.	426	0. 34	0.07	426	0.66	0.09			·
Manistee Ludington Lorain		.! 		419			8)	
Sandusky Bay city Oscoda Alpena				<u> </u>			 		
Marinette Gladstone		.			. 				
Houghton Menominee									
▲ll other ports		3. 26	0. 10	2, 882	4.45	0. 18	1,211	1. 99	0.05

TRAFFIC OPERATIONS—Continued.

TABLE 8.-FREIGHT MOVEMENT IN GENERAL, BY PRINCIPAL PORTS-Continued.

C.—OTHER PRODUCTS—Continued.

	LUMBER.											
PORTS.	Total	movement.		R	eccipts.		Shi	ipments.				
	Amount in tons.	Per cent of total lum- ber truffic.	Per cent of total port traffic.	Amount in tons.	Per cent of total lum- ber traffic.	Per cent of total port traffic.	Amount in tons.	Per cent of total lum- ber traffic.	Per cent of total port traffic.			
Total	12, 205, 655	100.00	23. 84	6, 857, 257	100.00	26, 44	5, 348, 398	100.00	21. 17			
Chicago (a)Buffalo	403, 951	21. 22 3. 31	32. 44 6. 00	2, 588, 004 403, 951	37. 74 5. 89	51. 05 9. 98	2, 106	0.04	9. 07			
Escanaba	566, 718	0. 44 4. 64 0. 03	1. 49 15. 65 0. 16	565, 626 4, 236	8. 25 0. 06	20. 66 0. 19	54, 041 1, 092	1. 01 0. 02	1. 57 0. 12			
AshlandMilwaukee		0. 6 6 3.38	3, 57 21, 31	412, 479	6. 02	26, 04	80, 119	1.50	4. 55			
Marquette	16, 179 287, 507	0. 13 2. 36 0. 15	0, 95 20, 01 1, 40	175 282, 399 17, 850	4. 12 0. 26	0. 12 55. 77 2. 31	16,004 5,108	0. 30 0. 10	1. 02 9. 55			
Superior	3, 905	0. 03 0. 11	0,33 1,18			! :	3, 905 13, 110	0. 07 0. 25	1.20			
Tonawanda Muskegon Fairport		8. 44 7. 92 0. 01	98, 36 96, 35 0, 09	1, 029, 729 119, 539 878	15. 02 1. 74 0. 01	98. 36 79. 00 0. 09	846, 615	15. 83	99.41			
Two Harbors	325, 256	2. 66	42.54	314, 995	4.59	51. 16	10. 261	0. 19	6.86			
Oswego :	1 136, 773	2. 32 1. 12 3. 91	40, 96 20, 63 75, 85	283, 058 135, 273	4. 13 1. 97	. 70.27 28.78	1, 500 477, 785	0. 03 8. 93	0. 78 79. 30			
Ludington Lorain	6,866	2. 12 0. 06	41. 19 1. 11	6, 866	0. 10	1. 98	258, 520	4.83	73.57			
Sandusky Bay city	485, 796	0. 71 3. 98	14. 45 87. 81	87, 040 4, 200	1. 27 0. 06	28. 54 6. 34	481, 596	9.00	98.90			
Oscoda	373, 204	4. 01 3. 06 0. 10	99. 90 96. 47 3. 51	12. 912	0. 19	70. 49	489, 962 373, 204	9. 16 6. 98	99, 91 99, 55			
Marinette	341, 723	2. 80	98. 70	278	0. 01	6. 55	341, 445	6.38	99.84			
Gladstone	265, 103	0. 09 2. 17	3.74 97.28	1, 224	0.02	0.59	9, 480 265, 103	0. 18 4. 96	12. 13 100. 00			
All other ports	2, 203, 996	18. 06	54. 11	586, 554	8. 55	36.73	1, 617, 442	30. 24	65. 32			

MANUFACTURES, MISCELLANEOUS MERCHANDISE, AND OTHER COMMODITIES.

PORTS.	Total	movement.		R	eceipts.	-	Sh	ipment#.	
POBIS.	Amount in tons.	Per cent of total man- ufactures, etc., traffic.	Per cent of total port traffic.	Amount in tons.	Per cent of total mau- ufactures, etc., traffic.		Amount in tons.	Per cent of total man- ufactures, etc., traffic.	Per cent of total port traffic.
Total	2, 658, 886	100.00	5. 19	1, 518, 220	100.00	5, 85	1, 140, 666	100.00	4.51
Chicago (a) Buffalo Becanaba Cleveland Ashtabula	77, 973	11. 23 21. 28 0. 34 2. 93	3. 74 8. 41 0. 25 2. 15	261, 693 63, 874 1, 002 55, 246	17. 24 4. 21 0. 06 3. 64	5. 16 1. 58 0. 51 2. 02	36, 925 502, 024 8, 150 22, 727	3. 24 44. 01 0. 71 1. 99	1. 27 18. 79 0. 24 2. 57
Ashland -Milwaukee Marquette Toledo Erie	64, 638 14, 607	11. 26 2. 43 0. 55 0. 39 · 4. 69	13. 32 3. 34 0. 85 0. 73 9. 80	282, 667 64, 040 4, 567 10, 464 36, 032	18. 62 4. 22 0. 30 0. 69 2. 37	58. 00 4. 04 3. 19 2. 07 4. 66	16, 744 508 10, 040 88, 555	1. 47 0. 05 0. 88 7. 76	0. 95 0. 17 0. 64
Superior Duluth Tongwanda	149, 155 199, 133	5. 61 7. 49	12. 64 17. 87	149, 155 144, 246	9. 82 9. 50	17. 03 21. 11	54, 887	4.81	12.74
MuskegonFairport	14, 575 7, 457	0. 55 0. 28	1.45 0.74	9, 750 7, 457	0. 64 0. 49	6. 44 0. 80	4, 825	0.42	0.57
Two Harbors. Detroit. Oewego Ogdensburg. Manistee.	30, 188 9, 844 146, 495 31, 302	1. 14 0. 37 5. 51 1. 18	3. 95 1. 42 22. 10 4. 97	12, 932 3, 721 25, 615 12, 294	0. 85 0. 25 1. 69 0. 81	2. 10 0. 92 5. 45 43. 76	17, 256 6, 123 120, 880 19, 008	1. 51 0. 54 10. 60 1. 67	11. 60 2.12 62. 67 3. 16
Ludington Lorain Sandusky Bay city	203	9. 25 0. 01 0. 12	39. 20 0. 03 0. 51	210, 358 3, 112	13. 86 0. 20	76. 15 1. 02	35, 657 203	3. 13 0. 02	10. 15 Q. 67
Oscoda	35 1, 695 43 1, 508	0.06	0. 01 0. 44 0. 01 0. 43	993	0. 07	23. 40	35 1, 695 43 515	0. 15	0. 45 0. 01 0. 15
Gladstone	6, 296 40, 300 6, 000	0. 24 1. 52 0. 22	2. 19 14. 08 2. 20	6, 296 40, 300 6, 000	0. 41 2. 65 0. 40	4. 76 19. 37 80. 80			
All other ports	300, 182	11.29	7. 37	106, 406	7. 01	6.66	193, 776	16.90	7.8

a Including South Chicago.

TABLE 9.—FREIGHT MOVEMENT IN GENERAL SUMMARIZED—RECEIPTS, SHIPMENTS AND TOTAL MOVEMENT OF THE LAKE FREIGHT, UNCLASSIFIED AS TO COMMODITIES, AND ALLOTTED TO ALL THE TRADING POINTS OF THE GREAT LAKES AND ST. LAWRENCE RIVER.

PORTS.	Total tounage.	Receipts.	Shipments.	PORTS.	Total tonnage.	Receipts.	Shipments.
Total	51, 203, 106	25, 936, 132	25, 266, 974	Charlevoix, Michigan.	62, 824	8, 915	53.90
		1		Marine city Michigan	61,001	45, 575	15, 42
. '	= == ===			Traverse city, Michigan Baraga, Michigan	60, 766	6, 566	54, 20
icago (a), Illinois	7, 984, 038	5, 069, 973	2, 914, 065	Baraga, Michigan	59, 278		59, 27
Iffalo, New York	6, 730, 137	4, 046, 144	2, 683, 993	Pequaming, Michigan	54, 193	 . 	54, 19
canaba Michigan	3, 626, 390	195, 558	3, 430, 832		'		
eveland. ()hio	3, 621, 570	2, 737, 708	883. 862	Fruitport, Michigan Morristown, New York	54, 126	47, 854	! 6, 27
htabula, Ohio	2, 695, 180	2, 205, 595	489, 585	Morristown, New York	48, 369	7, 178	41, 19
	i			St. Clair, Michigan	41, 553	14, 030	27,51
hland, Wisconsin	2. 247, 242	487, 358	1,759,884	Kenosha, Wisconsin	41, 532	35, 808	5, 7
lwaukee, Wisconsin	1, 935, 808	1, 584, 254	351, 554	Ontonagon, Michigan	40, 700	-	40,70
rquette. Michigan	1, 710, 885	143, 346	1,567,539	Damas Washing Military	07 -70	04.004	
rrquette. Michiganledo, Ohioie, Pennsylvania	1, 436, 991	506, 351	930, 640	Benton Harbor, Michigan	37,573	34, 614	2,9
ie, Pennsylvania	1, 271, 988	773, 030	498, 958	Fayette, Michigan Pentwater, Michigan	37, 389	23, 557	13, 8
1 - 3771	1 190 907	975 800	204 605	Komanna Wissersin	33, 111	469	32, 6
perior, Wisconsin	1, 180, 297	875, 692	304, 605	Kewaunee, Wisconsin	32, 627	9, 273	23, 34
iluth, Minnesota	1, 114, 048 1, 046, 895	683, 162	430, 886	Port Washington, Wisconsin	32, 304	21, 197	11, 10
nawanda, New York		1, 046, 895	851, 440	Ray Wille Michigan	32, 037	1,389	20.0
nskegon, Michigan	1, 002, 743 998, 459	151, 303 939, 021	59, 438	Bay Mills, Michigan Sodus Point, New York	24, 846	11, 911	30, 6 12, 9
irport, Ohio	996. 409	939, 021	39, 436	Cana Vincent New York	22, 819		
ro Harlsons Minnesots	936, 541		936, 541	Cape Vincent, New York	22, 504	22, 398 491	22,0
vo Harbors, Minnesotatroit, Michigan	764, 553	615, 750	148, 803	Black River, Michigan	22, 304	2,043	20, 2
ware New York	691, 118	402, 847	288, 271	Armen Attivot, Matchigan	26. 250	2,043	20,2
wego, New Yorkdensburg, New York	662, 904	470, 014	192, 860	Algonac Michigan	17, 586	9, 654	7,9
mistee, Michigan	629, 910	28, 096	601, 814	Algonac, Michigan Dunkirk, New York	17, 146	17, 146	',•
mintee, michigan	020, 010	20,000	001,014	Maryaville Michigan	13, 466	20, 200	13, 4
dington, Michigan	627, 627	276, 229	351, 398	Marysville, Michigan Sand Beach, Michigan	11, 867	10, 646	1,2
rain, Ohio	620, 773	346, 899	273, 874	Waukegan, Illinois	10. 959	10, 959	1 -,-
dusky Ohio	602, 403	305, 029	297, 374		10.000	10,000	1
ndusky, Ohioy city, Michigan	553, 219	66, 246	486, 973	South Haven, Michigan	10, 727	2, 234	8,4
coda, Michigan	490, 413	00,210	490, 413	Leland, Michigan	10, 325		10, 3
oua. miousgam	100, 110	i	200, 220	Leland, Michigan Clayton, New York	6,828	6, 519	3
pena, Michigau	386, 868	11, 969	374, 899	Sacketta Harbor, New York	6,508	6, 401	i
arlotte. New York	368, 361	18, 318	350, 043	Sebawaing, Michigan	6, 204	835	5,3
rinette, Wisconsin	346, 246	4, 244	342, 002		1		, -,-
adstone, Michigan	287, 590	132, 356	155, 234	Alexandria Bay, New York	6, 104	5, 951	1
oughton, Michigan	286, 191	208, 047	78, 144	Two Rivers, Michigan	5,863	5, 693	ì
				Petoskey, Michigan	5, 631	1, 701	3,9
nominee, Michigan	272, 529	7, 426	265, 103	Glen Arbor, Michigan	4,741		4,7
at Saginaw Michigan	248, 538	48, 686	199, 852	Grindstone Island, New York	4,608	158	4.4
at Tawas, Michigan	232, 153	19, 971	212, 182	·	'		
at Tawas, Michigan	230, 516	1, 172	229, 344	Port Sanilas Wishigan	4 501	590	
eboygan, Michigan	218, 940	24, 523	194, 417	Port Sanilac, Michigan De Pere, Wisconsin	4, 501 4, 434	1, 181	3, 9 3, 2
		1		Cross Village Michigan	2, 670	11	2.6
ashburn, Wisconsin	188, 393	55, 092	133, 301	Dorton Vary Vork	2, 169	2, 169	_ ~ ~
rt Huron, Michigan	170, 073	152, 073	18,000	Cross Village, Michigan Dexter, New York. Henderson, New York.	1,968	1,537	4
and Haven, Michigan	169, 546	101, 150	68, 396	itenderson, New Tork	1,500	1,505	,
and Haven, Michigan	169, 537	159, 312	1, 225		i :		1
een Bay, Wisconsin	156. 810	101, 369	55, 441	Oconto, Wisconsin	1,842	342	1,5
			. 1	Forestville, Michigan	1,817	1,005	8
chigan city, Indiana	148, 029	147, 897	132	Massena, New York	1,702	1,514	1
mistique, Michigan	144, 011	3, 690	140, 321	Wilson, New York Pultneyville, New York	1,593	1, 479	1
ir Haven, New Yorkeboygan, Wisconsin	134, 799	15, 482	119, 317	Puitneyville, New York	815	815	
eboygan, Wisconsin	124, 387	115, 995	8, 392				
nitowoc, Wisconsin	113. 377	88, 354	25, 023	Oak Orchard, New York	650	650	
i		04.000	00.00=	Sandy Creek, New York	622	622	1
Ignace, Michigan	107, 895	24, 068	83, 827 24, 501	Sandy Creek, New York Waddington, New York	575	523	
Joseph, Michigan	85, 017 82, 080	60, 516 512	24, 501 81, 568	Chaumont, New York	270	235	l
rd River, Michigan shtigo, Wisconsin		913		Olcott, New York	215	162	
sutigo, wisconsin	80, 683		80, 683				l
	76. 125	97 000	39, 062	Willing Ray New Vork	119	119	1
ult Ste. Marie, Michigan	76. 125 72, 348	37, 063 1, 264	39, 062 71, 084	Millins Bay, New York Thousand Island Park, New York	115	115	
Popile Michigan	72, 348 72, 108	41, 020	31, 088	Chippewa Bay, New York	84	115 30	
k Repids, Michigan		13, 694	56, 486	Youngstown, New York	75	75	
4FVII, VIII	70. 180	13,094	; 50,560 ·	LOUMEDWELL USE TOLK	10,	. 10	· · · · · · · · · · · · · · · · · · ·

TRAN—Pt. 2——21

a Including South Chicago.

TRAFFIC OPERA

TABLE 10.—FREIGHT RECEIPTS BY EXTENDED LIST OF COMMODITIES—RECEIPTS AT ALL THE LAKE AND RIVER
THE 4 COMPREHENSIVE CLASSES

			·		PRODUCT	S OF AGRIC	CULTURE			·	PRODUCTS	OF MINES AN RIES.	о остя
	POR18.	Total.	Wheat.	Corn.	Other grain.	Mill products.	Fruit.	Hay.	Pota- toes.	Other.	Coni and coke.	Iron ore.	Other ore.
	Total	25, 936, 132		1, 583, 901	477, 397	992, 066	800	7, 972	1, 674	58, 766	5, 102, 471	7, 026, 073	42, 120
1	Lake Superior	2, 491, 149			461	493	176	233	367	131	1, 754, 675	10, 691	
1	Ashland, Wisconsin	487, 358									201, 241		
	Ashland, Wisconsin Baraga, Michigan Bay Mills, Michigan Duluth, Minnesota	1, 389 683, 162		14	160						1, 200 485, 000	10, 691	
	Houghton, Michigan Marquette, Michigan Ontonagon, Michigan	208, 047 143, 346		8		! !				! 	144, 261 126, 421		
1	Pequaming, Michigan					· • • • • • • • • • • • • • • • • • • •			¦		.	·	
	St. Marys Falls, Michigan Superior, Wisconsin Two Harbors, Minnesota	37, 063 875, 692		' 	304	493	176	233	::37	131	24, 938 720, 000		.,
	Washburn, Wisconsin	55, 092											
.	Lakes Huron and St. Clair	1, 029, 356	29, 246	10, 688	16, 275	11,963	147			: 	362, 747	117, 639	<u> </u>
	Algonac, Michigan	9, 654 11, 969	(i		4, 976		,				7, 193 6, 000	1	
	Bay city, Michigan	66, 246 2, 043		140	1, 200	196					51,000 500		1
1	Cheboygan, Michigan			474	1			1	:		11	1	;
	Detroif, Michigan East Saginaw, Michigan East Tawas, Michigan	1.172	1	4, 242		,			'		1 392		
	Forestville, Michigan	1.005 45,575	·			' 		·			25		.'.
	Marysville, Michigan	ļ	 	! 			l			ļ	,	i 	
l	Oscoda, Michigan Port Huron, Michigan Port Sanilac, Michigan	152,073	i 24.000	5, 600	i 8.000	1 11.760		<i>.</i>	.	'	24,000	······	!
	Rogers city, Michigan			64	336	5	, 				37	†	·
	St. Clair, Michigan St. Ignace, Michigan Sand Beach, Michigan	14, 030 24, 068					'	234		'	8, 000 19, 257		
	Sand Beach, Michigan Sebawaing, Michigan	10, 646 835									5, 269 80	!	
1	Lake Michigan	8, 480, 892	4, 553	6, 209	10, 625	118, 423	309	5, 666	131	6, 877	2, 865, 021	1, 004, 630	·
	Benton Harbor, Michigan Charlevoix, Michigan Chicago and South Chicago, Illi- nois.		339	614	222	136 1, 860	50			5, 558	1, 337 1, 329, 364	4, 775 731, 188	
	Cross Village, Michigan De Pere, Wisconsin	1, 181		3	8		•••••				1, 095		
i	Elk Rapids, Michigan Escanaba, Michigan	41, 020 195, 558	60	17	69	35					662 194, 199	36, 950	
	Fayette, Michigan Ford river, Michigan	23, 557 512		20 112	48 400		• • • • • • • •				700	22, 621	l
	Fruitport, Michigan	47, 854			••••••		•••••		· · · · · · · ·		300 000	43, 904	·
Ì	Gladstone, MichiganGleu Arbor, MichiganGrand Haven, Michigan	132, 356 101, 150	300	53	286	52, 413	49				122, 000	39, 200	
ļ	Green Bay, Wisconsin	101, 369	96		68	26	53		. 		70, 374 9, 274		
	Kewaunee. Wisconsin	· ·		280			64				250		
i	Leland, Michigan Ludington, Michigan			163	965 1, 193	60, 160					4 5323		
	Manistee, Michigan	3,690		217 644	560	!					1,600		
İ	Manitowoc, Wisconsin Marinette, Wisconsin Menomineo, Michigan	88, 354 4, 244 7, 498	·		16		80				2, 870 1 150		
ļ.	Michigan city, Indiana Milwaukee, Wisconsin	147, 897 1, 584 , 254						40	15 80		907, 743	12:,312	
:	Montague, Michigan	1, 264	6	409	191	479			••••••		91	ļ 	
	Muskegon, Michigan Oconto, Wisconsin	151, 303 342 469	602	2, 608		33					300		
	Pentwater, Michigan			, 101 	!			• • • • • • • • • • • • • • • • • • • •		•••••		· · · · · · · · · · · · · · · · · · ·	
i	Petoskey, Michigan Port Washington, Wisconsin	1, 701 21, 197	90 1,500	252	3, 610 i			<i></i> '	 '		3,500		
	Racine, Wisconsin	159, 312 60, 516			· • • • • • • • • • • • • • • • • • • •	203		. 			4,800		
1	Sheboygan, Wisconsin	,	i	188							50,000	······.	
	South Haven, Michigan	2, 234	1, 470	188 448	35					'			•••••

TIONS—Continued.

PORTS, WITH TOTALS FOR THE LAKES AND ST. LAWRENCE RIVER, OF ALL THE COMMODITIES EMBRACED UNDER TREATED OF IN TABLE 7.

	-continu	AND QUAR- ed.		OTHER	PRODUCTS.				MA	NUFACTURES				Miscells neous
stone (all kinds).	Salt.	Other.	Animal products.	Live stock.	Lumber.	Ice.	Petro- leum.	Sugar.	Iron, pig and bloom.	Other iron manufac- tures.	Liquors.	Cement. brick, and lime.	All other manufactures.	merchar dise and other con modities
311,015	296, 513	15, 997	63, 513	1, 215	6, 857, 257	18, 912	28, 120	100, 434	162, 248	300, 939	9, 650	58, 256	16, 750	822. 911
60, 587	20, 119		301	70	7, 910		20, 249	2, 032	21, 623	182, 329	310	20, 116		379, 251
	3, 450									159, 492		1, 535		121, 640
	7										1:::::::			
35, 374	7. 851	•••••			1 001				21, 489	15, 702		11,745		95. 310
22, 262 11, 951	224				1. 224 175	• • • • • • • • • • • • • • • • • • • •		•••••				450		38, 094 4, 117
	· · · · · · · · · · · · · · · · · · ·											• • • • • • • • • • • • • • • • • • •		
	73 6, 537		301	70	6, 511		509 19, 740	158 1, 874	134	119 7,016	3 10	399 3, 698		1, 837 116, 827
·····	1,977						10,110			1		75		1, 420
			·			i					1			
25, 975	25, 043	771			390, 434		690		11, 241	6, 302	i	9, 411		10, 550
600		225			2, 461						ļ	'		
11,000	7	46			4, 200							! 		
	202		<u> </u>	 	1, 065		690		112	1		180		8, 05
	21, 528				314, 99 5 2, 370				11, 057			150	 	
	42		·		383 865				5	ļ		73		
	70	• • • • • • • • • • • • • • • • • • • •	i	' 	3, 783	•••••			67		! !	' 		
		F00								;			 	0.50
14, 375	420 70 49	500			51, 918 387							9,000		2, 500
	49				6, 030							• • • • • • • • • • • • • • • • • • • •		
	2, 655				1, 222					4, 577				
			1		755									1
51, 944	225, 582	4, 202	2, 671	477	3, 548, 923		6, 847	98, 402	46, 717	109, 575	9, 140	9, 674	4, 761	339, 533
1 000	210 35				28, 700						39	810		4, 894
1. 020 18, 176	128, 948	1, 600	146		2, 588, 004		65	84, 755	38, 781	96, 383	8, 648			260 33, 126
!	4 2		ļ	,	20								,	24
!	70		l		42							3, 130		
288	34 14				150		720				ļ	282		
2, 300			ľ	1										1. 650
	4, 060		;; 							896				5, 400
2, 248	65	• • • • • • • • • • • • • • • • • • •			1. 435 5, 790				504	391	75	69		906
9, 450	5, 543	129		. 11	5, 790 17, 252		1, 644 2	522	604	6, 023 200	6			9.06
	210	600		İ	346		100			200	200	23	· · · · · · · · · · · · · · · · · · ·	7,000
					•••••					50				210, 300
i	180			419	•••••		:			898		57		11, 224 640
	1, 400 87	1, 600			8, 126 278		200	·····	·	2,000	! !	1	' ' '	906
1, 362	196 8, 483								3, 195					906 6, 000
3, 262	71, 944	282	72	·····	412, 479			13, 125		565	ļ	'	ı	41, 30
12, 113	52	• • • • • • • • • • • • • • • • • • •		11	119, 530				1, 438		! '	825	4, 704	81-
	42		1	,										
	210 420			' 										·
	140	'			92, 152									
	700			······										
					61, 295 1, 871			 	•••••		1		 	

TRAFFIC OPERA

TABLE 10.—FREIGHT RECEIPTS BY EXTENDED

					PRODUCT	S OF AGRIC	CULTURE.				PRODUCTS	OF MINES AND RIES.	D QUAR-
	POETS.	Total.	Wheat.	Corn.	Other grain.	Miil products.	Fruit.	Нау.	Pota- toes.	Other.	Coal and coke.	Iron ore.	Other ore.
1	Lake Erie	12, 957, 483	837, 821	1, 418, 617	331, 124	814, 410	140	446	i	48, 165	97, 865	6, 490, 518	39, 540
2 3 4 5	Ashtabula, Ohio Buffalo, New York Cleveland, Ohio Dunkirk. New York	2, 205, 595 4, 046, 144 2, 737, 708 17, 146	781, 548 22, 494	1, 319, 560 434	316, 987 685	666, 651 252	140				1, 200	2, 199, 109 333, 827 1, 951, 564	39, 540
6 7 8 9	Erie, Pennsylvania Fairport, Onio Huron, Ohio Kelleys Island, Ohio	773, 030 939, 021 13, 694 19, 971	33, 779	98, 623									
10 11 12 13	Lorain, Ohio	305, 029 506, 351							·	, 	1, 561 93, 369	208, 411 97, 476	
14	Lake Ontario	485, 220	20, 483	16, 438	89, 178	7	5	351	510	3, 274	7, 218		·
15 16 17 18	Cape Vincent, New York Charlotte, New York Chaumont, New York Dexter, New York	235 2, 169	1, 185	3							100 1, 480		
19 20 21	Henderson, New York Millins Bay, New York Oak Orchard, New York	1, 537 119 650			1	! ! 	: :	1	l	2	110		
22 23 24	Olcott, New York Oswego, New York Pultneyville, New York	162 402, 847 815	19, 297	16, 434	78, 340		. 	• • • • • • • • • • • • • • • • • • •	506				· ,
25 26 27 28 29 30	Sacketts Harbor, New York Sandy Creck, New York Sodus Point, New York Wilson, New York Youngstown, New York Fair Haven, New York	6, 401 622 11, 911 1, 479 75 15, 482		1	4, 649						482		
31	St. Lawrence river	492, 032	27, 059	131, 927	29, 731	46, 770	23	1, 042	666	319	74, 945	2, 595	2, 580
32 33 34 35	Alexandria Bay, New York Chippewa Bay, New York Clayton, New York Massena, New York	5, 951 30 6, 519 1, 514	1	6	5					,1	2, 933 3, 549 1, 500	8	
36 37 38 39	Grindstone Island, New York	7, 178 470, 044 115 523	27. 058	131, 907	1 144 29, 581	46, 770		1, 040	660	316 2	66, 231 110 500	2, 587	2, 580

TIONS—Continued.

LIST OF COMMODITIES, ETC.—Continued.

	OF MINES A 8—continu	ND QUAR- ed.		OTHER I	PRODUCTS.					NUFACTURES				Miscella
tone (all kinds).	Salt.	Other.	Animal products.	Live stock.	Lumber.	Ice.	Petro- leum.	Sugar.	Iron, pig and bloom.	Other iron manufac- tures.	Liquors.	Cement, brick, and lime.	All other manufactures.	neous merchan disc and other con modities
161, 779	25, 661	10, 812	59, 820		2, 444, 580		334		82, 067	718			11,666	61, 928
2, 250 9, 060 130, 777	8,646	3, 639	59, 820		4, 236 403, 951 565, 626 17, 146		334		41, 899	718		6, 858	11, 666	9, 556 5, 771
2, 070		7, 081			17, 850 878 10, 388 18, 471					 				36, 032 7, 457
4, 800 12. 822	71 4, 905 9, 729	92			6, 866 87, 040 282, 399 1, 029, 729									1
1, 730	79	212	9	592	320, 230	18, 912				ļ			300	5, 527
		12		563	16, 014 12, 912								300	366
			1		12, 912 125 436									10
	77			12	436 308				:					530
			i	5	650				'				. 	
					162 283, 058					<u> </u>				3, 721
1, 730	2		· · · · · · · · · · · · · · · · · · ·	12	759 446							56		742
					288	6, 974			.'					140
		• • • • • • • • • • • • • • • • • • •		 	1, 479 75	 								
•••••		- -	i	' I	3, 518	11, 938								18
	29		712	76	145, 180				<u> </u>	2, 015	200	18	23	26, 122
	29		7	16	789 30					2, 015		14	11	107
		• • • • • • • • • • • • • • • • • • •	76	58	2, 200							4	12	600
				2	31						l			
			200 426		6, 834 135, 273						200		!	25, 415
			3		23						1			

TRAFFIC OPERA

TABLE 11.—FREIGHT SHIPMENTS BY EXTENDED LIST OF COMMODITIES—SHIPMENTS FROM ALL THE LAKE AND UNDER THE 4 COMPREHENSIVE CLASSES.

					PRODUCT	S OF AGRIC	CULTURE	•				TS OF MINES QUARRIES.	AND
	PORTS.	Total.	Wheat.	Corn.	Other grain.	Mill products.	Fruit.	Нау.	Pota- toes.	Other.	Coal and coke.	Iron ore.	Othe ore.
-	Total	25, 266, 974	969, 150	1, 929, 614	503, 117	894, 123	26, 184	10, 105	2, 024	73, 751	6, 105, 799	7, 677, 107	29, 44
	Lake Superior	5, 434, 781	399, 355	55, 112	1, 382	205, 227	10	05	59	834	26, 075	4, 141, 057	29, 44
	Ashland, Wisconsin						ļ						
	Baraga, MichiganBay Mills, Michigan	59, 278											,
	Duluth, Minnesota	430, 886	207, 732			103, 134							
	Houghton, Michigan	78, 144	,							! • • • • • • • • • • • • • • • • • • •	25, 075	1 541 406	25, 9
	Marquette, Michigan Ontonagon, Michigan	40,700				· • • • • • • • • • • • • • • • • • • •	1	. 				` 	2
	Pequaming, Michigan						1			1	1	1	
	St. Marys Falls, Michigan Superior, Wisconsin	39, 062 304, 605	191, 623		30	95, 576	10	65		16			3, 3
	Two Harbors, Minnesota Washburn, Wisconsin	936, 541 133, 301				6, 395					'	936, 541	
													!
	Lakes Huron and St. Clair		81, 417		6, 204	1	2, 390	2, 530	108		13, 574		
	Algonac, Michigan	374, 899								·			
	Bay City, MichiganBlack River, Michigan	486, 973			. 			. 				1	
	Cheboygan, Michigan	194, 417							48				
i	Detroit, Michigan East Saginaw, Michigan East Tawas, Michigan	148, 803 199, 852	80, 757	27, 536	1,910	999	1, 865			1, 617		2, 156	
1	East Tawas, Michigan Forestville, Michigan	229, 344 812						1	1				. j
	Marine city, Michigan	15, 426										;	
	Marysville, Michigan	13, 466			40 64					ļ			
	Port Huron, Michigan	18,000									10,000		
	Port Huron, Michigan	3, 911 22, 013	600		1, 636			1,500					.
	St. Clair, Michigan	27, 523			32			1,000	! ,,.				
	St. Ignace, Michigan Sand Beach, Michigan Sebawaing, Michigan	83, 827 1, 221	: 		1, 221	·	·		' 30 :	' • • • • • • • • •	, i		.
	Sebawaing, Michigan	5, 369		224	704	3, 830	525			86		 !	
	Lake Michigan	10, 090, 366	347, 466	1, 772, 109	489, 971	620, 410	23, 258	7, 056	1, 857	65, 297	257	3, 446, 947	
,	Benton Harbor, Michigan Charlevoix, Michigan		 			·	2, 959 43			ļ			
Ì	Chicago (a), Illinois	2, 914, 065	312, 203 9	1, 769, 621	457, 095	228, 138	i	927	1, 235	49, 822			
	De Pere, Wisconsin	3, 253	6	38	162		,			4			
	Elk Rapids, Michigan Escanaba, Michigan	31, 088	ˈ			4 508	· • • • • • • • • • • • • • • • • • • •	ļ .	·	 		3 384 087	·
į	Fayette, Michigan Ford River, Michigan	13, 832	27									· • • • • • • • • • • • • • • • • • • •	
:	Fruitport, Michigan					·	· · · · · · · · · · · · · · · · · · ·	 '	· · · · · · · · · · · · · · · · · · ·	1			
!	Gladstone, MichiganGlen Arbor, Michigan	155, 234 4, 741	1,500			70, 854	·	ļ	·			82, 880	· · · · ·
	Grand Haven, Michigan	68, 396	!	90	1 701	21			17	7	12 5		
ı	Green Bay, Wisconsin Kenosha, Wisconsin	5, 724		29	3	21,474	ļ,	: '	·······	ļ	15		
İ	Kewannee, Wisconsin Leland, Michigan Ludington, Michigan	23, 354	1.500	<u> </u> 	205			800	30	3, 258			
,	Ludington, Michigan	351.398					.		' ·			1	
!	Manistique, Michigan	140, 321						12	· · · · · · · · · · · · · · · · · · ·		,		
	Manitowoc, Wisconsin	25, 023 342, 002	1, 200	• 42	824	2, 940	`	5, 250	150	6, 706	 		<u>!</u>
	Menominee, Michigan												
	Michigan city, Indiana	351, 554	29, 191	1, 434	28, 847	289, 174	· · · · · · · · · · · · · · · · · · ·			16	40		·
	Montague, Michigan	71, 084				.	. 57	ļ	ļ	· • • • • • • • • • • • • • • • • • • •	·		í
í	Oconto, Wisconsin	1 500		1					1		;!	1	1
	Pentwater. Michigan Peshtigo Harbor, Wiscousin	32, 642 80, 683					· · · · · · · · · · ·	·		ļ	¦		·: ·:
	Petoskey, Michigan	3, 930		238		297	ļ	, • • • • • • •	45	ļ	i [,]		
	Port Washington, Wisconsin Racine, Wisconsin	11, 107 1, 225	180	238	299 80	600	350		;;				::::
	St. Joseph. Michigan	24, 501 8, 392	;	707	640	1,341	15, 400	·		5,000	200		: ::::
	South Haven, Michigan												
	Traverse, Michigan Two Rivers, Michigan Waukegan, Illinois	54, 200 170	·			.; 20	· • • • • • • • • • • • • • • • • • • •						
	Waukegan, Illinois	l	·	l		. '		·			l:		

TIONS—Continued.

RIVER PORTS, WITH TOTALS FOR THE LAKES AND ST. LAWRENCE RIVER, OF ALL THE COMMODITIES EMBRACED TREATED OF IN TABLE 7.

PRODUC QUARR	TS OF MINI	es and nued.		OTHER I	PRODUCTS.	!			MAN	UFACTURES.				Miscel laneou mer-
tone (all kinds).	Salt.	Other.	A uimal products.	Live stock.	Lumber.	Ice.	Petroleum.	Sugar.	Iron, pig and bloom.	Other iron manufac- tures.	Liquors.	Cement, brick, and lime.	All other manu- fac- tures.	chan- dise and other com- modi- ties.
236, 214	252, 837	7, 500	59, 982	871	5, 348, 398		24, 462	2, 883	153, 976	19, 364	4, 586	123, 206	11, 985	800, 204
17, 689	23	3, 627	1, 597	36	468, 157		73	10	26, 664	4	14	464		57, 889
•••••					80, 119	ļ			16, 621			123		
		•			59, 278 30, 600			· · · · · · · · · · · · · · · · · · ·						
17, 689		•••••			13, 110 9, 480	.				 	· · · · · · · · · · · · · · · · · · ·	•••••	' • • • • • • • • • • • • • • • • • • •	54, 887
					16, 004 40, 500				10,040	•••••			¦	
	!	• • • • • • • • • • • • • • • • • • • •			54, 193									
	23	3, 627	186 1, 321	36	36, 468 3, 905		73	16	3	4	14	341	· · · · · · · · · · · · · · · · · · ·	596
			1, 021		3, 905 124, 500						ļ			2, 406
					124,000						; • • • • • • • • • • • • • • • • • • •			2, 900
• • • • • • •	53, 480	3, 903		175	2, 036, 051	 		· • • • • • • • • • • • • • • • • • • •	21, 482	177	54	10, 173	 	15, 865
	7,728				204									1
	5, 377		'		373, 204 481, 596		 			: <u>::</u> ::::::				1,695
			∦		20, 250 188, 507]		112			 	! 	5, 750
	882			ļ	10, 261]		17, 062	146		48		
	12, 974	3, 903			199, 842 212, 467		j							(;
	9, 859		1		5, 5 67							ļ		
			J	· · · · · · · · · · · · · · · · · · ·	13. 426			l		ļ <u>.</u>	ļ	ļ	ļ	ļ
	294				489, 962					31				8,000
			;;	175	22, 013						•••••• •••••		!	
	16, 3 6 6		J				 	! . • • • • • • • • • • • • • • • • • • •	ļ		<u></u> -	10, 125	ļ	ļ <u>.</u> .
					18, 752	1			4, 308		54	<u> </u>		416
• • • • • • • •		! 			••••••	j							! !	l
11, 466	173, 957	60	58, 475	660	2. 83 6, 236		5	2, 867	100, 473	449	2, 768	8,898	11,973	107, 451
					36, 882				0.001			115		6, 799
	8		55, 985		2, 106 1, 650			2, 806	9, 961 7, 018	385	2, 518	115	11,689	12, 449
· · · · · · · · · ·			4	9	1, 650			 	271		' 		<u> </u>	880 1,720
	32				9, 591			ļ	21, 497 8, 092	58	l		١	: i _i
			34	• • • • • • • • • • • • • • • • • • • •	54, 041 81, 568				13, 805	98	 		,	
	·····				01, 208		<u> </u>	· · · · · · · · · · · · · · · · · · ·	6,272				¦	:
		ļ		!	4, 741				l		! 	! '	ļ	li
	350		1		34, 299	1		1	31, 360	1				2, 366
5, 716	11,303		2		1, 104		5		¦					13, 212
	· 	60	13		10, 013 9, 225		i 			i <u></u>		2, 250	! 	5, 170 1, 100
	57, 221	, .			258, 520 477, 785	1	'i							
· · · · · · · ·				'	140, 321			·	1	·				25,03
			36		5, 625 341, 445		 -		l			2, 250	 	485
	ļ				265, 103		1		1				:	
	ļ		2, 294					,	598		;			
			·····		70, 917 846, 615			i			ļ	1	! 	110 4, 825
								,		'			`	
		·			80, 683				¦	ļ				
. 	. '				2, 348 9, 790	1			ļ	·	ļ	66 0		550
•••••	· · · · · · · · · · · · · · · · · · ·		110	125		.		1	.		1	.	200	360 2,760
5, 750	· · · · · · · · · · · · · · · · · · ·			1		.					175	920		
			1	53	3, 312 54, 200									44
	.1			1,	150									

TRAFFIC OPERA

TABLE 11.—FREIGHT SHIPMENTS BY EXTENDED

		. :		 	PRODUCT	S OF AGRI	CULTURE					rs of mines Quarries.	AND
`	PORTS.	Total.	Wheat.	Corn.	Other grain.	Mill products.	Fruit.	Hay.	Pota- toes.	Other.	Coal and coke.	Iron ore.	Other ore.
1	Lake Eric	6, 386, 392	140, 912	74, 528	5, 560	63, 657	250		ļ	215	5, 196, 182	26, 644	
2 3 4 5	Ashtabula, Ohio Buffalo, New York Cleveland, Ohio Dunkirk, New York	883, 862	-							215	489, 585 2, 156, 670 825, 030	26, 644	
6 7 8 9	Erie, Pennsylvania Fairport, Ohio Huron, Ohio Kelleys Island, Ohio	59, 438 56, 486					.	' .					
10 11 12 13	Lorain, Ohio Sandusky, Ohio Toledo, Ohio Tonawanda, New York	297, 374 930, 640	8, 063 132, 363	73, 952		63, 657					273, 671 275, 385 650, 000		
4	Lake Ontario	771,727		1			276	454	! . <u></u>	G9	764, 355		 .
5 6 7 8	Cape Vincent, New York Charlotte, New York Chaumont, New York Dexter, New York Hendorson, New York	350, 043 35				1		35					
01234	Millins Bay, New York	53 288, 271		1			47		· · · · · · · · · · · · · · · · · · ·	, '	 		· · · · · · · · · · · · · · · · · · ·
5 6 7 8	Pultneyville, New York Sacketts Harbor, New York Sandy Creek, New York Sodus Point, New York Wilson, New York	107					53			60			
1	Youngstown, New York	119, 317 239, 257			••••••				` 	5, 508	119, 317 105, 356		!
2 3 4 5 5 5	Alexandria Bay, New York Chippewa Bay, New York Clayton, New York Maasena, New York	153 54 309 188		104		••••				54 90 188		8	
7	Grindstone Island, New York Morristown, New York Ogdensburg, New York Thousand Island Park, New	41, 191				•••••		· · · · · · · · · · · · · · · · · · ·	· · · · · · · · · · · · · · · · · · ·		40, 000 65, 356		
,	York. Waddington, New York	52			· · · · · · · · · · · · · · · ·	 	ļ	· • • • • • • • • • • • • • • • • • • •		52			

TIONS—Continued.

LIST OF COMMODITIES, ETC.—Continued.

PRODUC QUARE	TS OF MIN	nued.	h	OTHER I	PRODUCTS.	,			MAN	UFACT' RES.				Miscel laneous mer-
Stone (all kinds).	Salt.	Other.	Animal products.	Live stock.	Lumber.	Ice.	Petroleum.	Sugar.	Iron, pig and bloom.	Other iron manufac- tures.	Liquors.	Cement brick, and lime.	All other manufactures.	chan- dise and other com- modi- ties.
202, 601	25, 327		- ····		6, 200			: ! _	5, 335	18, 704	1,750	103, 648		514, 879
7,550	25, 299 28		!. 		1,092		!		5, 385	6, 981 11, 723		74, 910 131	 	420, 133 5, 538
		 	'			 	' .'	 				 	 	88, 555
181, 125								ļ !	1	 	1, 750	28, 607		i
13, 926					5, 108			·		' 			1	208
8	50		 		12	 	142	 	! 22	30		23	12	6, 273
8		'				·	99		22	30	' – 		12	65
]	1							ļ:			ļ	
		 	'' 		 		,		: i	 	 	·············		ļ 1
	50											23	' 	6, 100
					4	! !			ļ		!	· · · · · · · · · · · · · · · · · · ·	ļ	103
			1											1
			:			 	1	<u> </u>		\	:::::::::::::::::::::::::::::::::::::			
4, 450					1,742		24, 242				·		!	97, 847
			† ''		176					·				35
4, 450					29 1. 500		662 23, 580		1			······································		500 97, 300
					1. 500	ļ	23, 580	i	······			l		31,300

TRAFFIC OPERA

TABLE 12.—FREIGHT MOVEMENT OF COMBINED RECEIPTS AND SHIPMENTS BY EXTENDED LIST OF COMMODITIES—OF ALL THE COMMODITIES EMBRACED UNDER THE 4

					PRODUCT	S OF AGRIC	ULTURE.				PRODUCTS C	OF MINES AN	D QUAR-
	POETS.	Total.	Wheat.	Corn.	Other grain.	Mill products.	Fruit.	Hay.	Pota- toes.	Other.	Coal and coke.	Iron ore.	Other ore.
	Total	51, 203, 106	1, 888, 312	3, 513, 515	980, 514	1, 886, 189	26, 984	18, 077	3, 698	132, 517	11, 268, 270	15, 303, 183	71, 562
2	Lake Superior	7, 925, 930	399, 355	55, 134	1, 846	205, 720	186	298	426	965	1, 780, 750	4, 151, 748	29, 442
3	Ashland, Wisconsin	2, 247, 242						ļ ——	' 		201, 241	1, 663, 021	
4 ! 5	Baraga, Michigan Bay Mills, Michigan	32, 037	107 720	14	208	100 104					1, 200	10.001	
7	Duluth. Minnesota	· '	207, 732	49, 901	1, 304	103, 134		'	·	818	485, 000 169, 336	10, 691	25, 900
8	Marquette, Michigan		i	8				<u> </u>			126, 421	1, 541, 495	l
0	Pequanilng, Michigan	54, 193	j	¦		 				' i			
2	St. Marys Falls. Michigan Superior, Wisconsin		191, 623	5, 211	334	615 95, 576	186	298	426	147	25. 928 720, 000		
3	Two Harbors, Minnesota Washburn, Wisconsin	936, 541 188, 343				6, 395	'				51, 614	936, 541	
5	Lakes Huron and St. Clair	3, 373, 807	110, 663	38, 448	22, 479	16, 792	2, 537	2, 764	108	1, 828	376, 321	180, 090	
8	Algonac, MichiganAlpena, Michigan			168	4, 976						7, 193 6, 000	•	··
3	Bay city, Michigan Black River, Michigan	553, 219 22, 293		140	1. 200	.				: :	51,000		
0	Cheboygan, Michigan	218, 940	1. 927	474	823		·····		48		11.000		.
2	Detroit, Michigan East Saginaw, Michigan	764, 553 248, 538	82, 576	31,778	2. 850		·			1,617		· · · · · · · · · · · · · · · · · · ·	
3	East Tawas, Michigan Forestville, Michigan	230, 516 1, 817	60						30	125	392 25		
	Marine city, Michigan	61, 001 13, 466			40	2	i				41, 653	1	
8	Oscoda, Michigan Port Huron, Michigan	490, 413 170, 073	24, 000	5, 600	8, 000	11 760		30			34 000	28	
9	Port Sanilac. Michigan	4,501	600	64	1, 636 336						125		.
ı	St. Clair, Michigan	41,553			32	1	İ	1,000		ļ	8,600		
2	St. Ignace, Michigan Sand Beach, Michigan	107, 895 11, 867	1,500		1, 221			234		······	19, 257 5, 269	60, 267	<u> </u>
L	Sebawaing, Michigan	6, 204		224	704	3, 830	525			86	80		
5	Lake Michigan	18, 571, 258	352, 019	1, 778, 318	500, 596	738, 833	23, 567	12, 722	1, 988	72, 174	2, 865, 278	4, 451, 577	
6	Benton Harbor, Michigan Charlevoix, Michigan	37, 573 62, 824	339	614	222	136	2, 959 93		109		1.337	4. 775	.ii
8	Chicago and South Chicago, Illinois.	7, 984, 038	312, 203	1, 769, 621	457. 093			4, 327	1, 271	55, 380	1, 329, 364		
9	Cross Village, Michigan De Pere, Wisconsin		6	38	162	1,043		· · · · · · · · · · · · · · · · · · ·		4	1,095	.	
1	Elk Rapids. Michigan Escanaba, Michigan	72, 108 3, 626 , 390	60	17	69	4, 543				ļ	682 194, 190	36, 950 3, 364, 067	;
3	Fayette, Michigan Ford River, Michigan	37, 389 82, 080	27	20 112	48	4,043		·			700	22, 621	
5	Fruitport, Michigan								· · · · · · · · · · · · · · · · · · ·			43, 904	
6 7	Gladstone, Michigan	287, 590 4, 741	1,500			.' 70, 854	·				122, 000	.i	
8	Green Bay, Wisconsin	156, 810	300 1, 746	53 29	286 1, 852			407		1, 276	70.386		
0	Kenosha, Wisconsin	i i	1, 500	I	3	1					1		
23	Kewaunee, Michigan Leland, Michigan Ludington, Michigan	32, 627 10, 325 627, 627	1,500		205 965	60, 160	.'. .		.j	3, 258	I'		
4	Manistee, Michigan Manistique, Michigan	629, 910		217	1, 193			1, 720		· · · · · · · · · · · · · · · · · · ·	9, 187		
6	Manitowoc, Wisconsin	1	1, 200	42	824	2, 940	İ	. 5, 250	150	6, 706	75.000	•	
7	Marinette, Wisconsin	346, 246 272, 529			16		. 80		.	· · · · · · · · · · · · · · · · · · ·	2, 870 1, 150		·}····
)	Menominee, Michigan Michigan city, Indiana Milwaukee, Wisconsin	148, 029 1, 935, 808	29, 191	1, 434	28, 847	289, 174	·	60 40	15 80	16		124, 3:2	1
1	Montague, Michigan	72, 348 1, 002, 743	692		191 1, 840	479	57	111		43	li 3.620		
3 4	Oconto, Wisconsin	1, 842 33, 111	1	181	181	•				.'. 	300 107	***************************************	
5	Peshtigo Harbor, Wisconsin	80, 683		.ļ	·		.	·!				• • • • • • • • • • • • • • • • • • • •	
6	Petoskey, Michigan Port Washington, Wisconsin	82, 304	1,680	490	3, 909	600					8,500	1.680	1
8 9 0	Racine, Wisconsin	85, 017	ľ		.	. 1,544	15, 400			5. 000	4, 800		: :::::
U 1	Sheboygan, Wincentin	ļ		188	1		1	1			11		1
2	Traverse city, Michigan		1,470		933	'	7, 550	· · · · · · · · · · · · · · · · · · ·	131	404	3,000		

TIONS—Continued.

TOTAL MOVEMENT TO AND FROM ALL LAKE PORTS, WITH TOTALS FOR EACH LAKE AND ST. LAWRENCE RIVER, COMPREHENSIVE CLASSES TREATED OF IN TABLE 7.

	of MINES. 8—continu		<u>"</u>	OTHER 1	PRODUCTS.			•	• ж.	ANUFACTURE	s.			Miscella
Stone (all kinds).	Salt.	Other.	Animal products.	Live stock.	Lumber.	Ice.	Petro- leum.	Sugar.	Iron, pig and bloom.	Other iron manufac- tures.	Liquors.	Cement, brick, and lime.	All other manufactures.	merchan dise and other com modities
547, 229	549, 350	23, 587	123, 495	2, 086	12, 205, 655	18, 912	52, 582	103, 317	316, 224	320, 303	14, 236	181, 462	28, 735	1, 623, 11
87, 276	20, 142	3, 627	1,808	106	476, 067		20, 322	2, 048	48, 287	182, 333	324	20, 580		437, 14
	3, 450				80, 119 59, 278				16, 621	159, 492		1, 658		121, 64
35, 374	7, 851				30, 600 13, 110				21, 489	15, 702		8 11, 745		150, 19
39, 951	.,			ı	10, 704				21, 200	10, 102		2, 206		38, 09-
11, 951	224				16, 179 40, 500				10, 040			450		4, 11
•••••				••••	54, 193		ļ						įi	
•••••	96 6, 537	3, 627	487 1, 321	106	42, 979 3, 905	'	582 19, 740	174 1,874	137	123 7, 016	324	740 3, 698		2, 43 116, 82
• • • • • • • • • • • • • • • • • • •	1,977				124, 500							75		3, 83
	! 50 500					!!!			40.500					
25, 975	78, 523	4, 674		175	2, 426, 485		690		32, 723	6, 479	54	19, 584		26, 41
600	7,728	225	ļ	' ,	2, 665 373, 204	1								1,69
11,000	5, 377	46			485, 796 20, 250		·							
	202				189, 572		690	 	224			180		13, 80
••••••	22, 410	2 000		¦	325, 256 202, 212		·		28, 119	1, 871		198		
	12, 974 42 9, 929	3, 903			212, 850 865		ļ	·	5 67			73		ļ .
	8, 929		<u> </u>		9, 350 13, 426			, 	67	.	• • • • • • • • • • • • • • • • • • • •			
14, 375	294 420	500			489, 902 51, 918		1			31		9,000		10.50
	70 49	,	i.	175	31, 918 387 22, 013			,				8,000		10,50
• • • • • • • • •	16, 366				6, 030			i	'		!	10, 125		
• • • • • • • • • • • • • • • • • • •	2, 655			'	18, 752 1, 222			ļ	4, 308	4, 577	54	10, 123		41
	2, 300			1	755			1	i	 				
6 3, 4 10	399, 539	4, 262	61, 146	1, 137	6, 385. 159		6, 852	101, 269 -	147, 190	110, 024	11,908	18, 572	16, 734	446, 98
1, 020	210 85				28, 700 36, 895		65		9, 961		39	810 125		4, 89 7, 05
18, 176	128, 956	1,600	56, 131		2, 590, 110			87, 621	45, 799	96, 768	11, 166		11, 689	45, 57
	42			9	1, 65 0			ļ	271	:			!	88 1, 74
	70		1		9, 633			1	21, 497	i 		3, 150		
288	66		34	·	54, 041 150		720		8, 092 13, 805	58	 	282 4		
2, 300	1			<u>!</u>	81, 568			! !	6, 272	: :				1, 65
	4, 060			ļ	l <u></u> .,,		ļ	' 	· 	896	 	 	ļ	5, 40
2, 248	415		1, 473	421	4, 741 35, 784				31, 864	391	75 81	69		3, 27
9, 450 5, 716	16, 846	120	²	421	35, 734 6, 954 17, 252		1,649	523	2, 203	6, 029 200	81	2, 947	87	13, 90 9, 06
•••••	210	660	13	55	10, 359 9, 225		100			200	200	2, 273	·	12, 17 1, 10
	57, 221 105, 001	ļ 		427	258, 520 477, 785	1			1	50 898	172		14	245, 96 30, 18
	189				140, 321			i	i			57	, 111	64
	1,400 129	1,600	64		13, 751 341, 723		200			2,000		2, 250 117		1, 39
1, 362	196 8, 483	!			265, 103 134, 842			1	3. 195	 				6,00
3, 262	71, 944	282	2, 366		412, 479		4, 046	13, 125	3, 195 2, 787	565		2, 804	10	41, 30
12, 113	52		052	36 11	70, 917 966, 145				1,438	1. 969		825	4,704	11 5, 6 3
.	42	·			1,500 32,642		 							
]		80, 683							 		
		ļ 	 		2, 853 20, 025		<u> </u>					690	<u>.</u>	1, 42
	140 700	[110		92, 152 53, 839		' 					20 974	200	36 2, 76 8, 30
5. 750	1,400				61, 295		 				175	920		
• • • • • • •	140 490		1	53	5, 183 54, 200	<u> </u>						225 30	l:	4
1. 725	140	1	11		1,528			1	.1					1, 15

TRAFFIC OPERA

TABLE 12.—FREIGHT MOVEMENT OF COMBINED RECEIPTS AND

	· 		,	·	PRODUCT	S OF AGRIC	ULTURE.				PRODUCTS	OP MINES AN RIES.	D QUAR
	PORTS.	Total.	Wheat.	Corn.	Other grain.	Mill products.	Fruit.	Нау.	Pota- toes.	Other.	Coal and coke.	Iron ore.	Other ore.
1	Lake Erie	19, 343, 875	978, 73 3	1, 493, 145	336, 684	878, 067	390	446		48, 380	5, 294, 047	6, 517, 162	39, 540
2 3 4 5	Ashtabula, Ohio Buffalo, New York Cleveland, Ohio Dunkirk, New York	6, 730, 137 3, 621 , 570	781, 548 22, 494	1, 319, 560 1, 010	316, 987 685		140			999	489, 585 2, 156, 670 826, 230		39, 540
6 7 8 9	Erie, Pennsylvania Fairport, Ohio Huron, Ohio Kelleys Island, Ohio	998, 459	33, 779 486	98, 623	13, 452	147, 507	250			1	56, 235		
0 1 2 8	Lorain, Ohio	602, 403 1, 436, 991	8, 063 132, 363		5, 560	63, 657				l	273, 671 276, 946 743, 369		`
.4	Lake Ontario	1, 256, 947	20, 483	16, 439	89, 178	7	281	805	510	3, 343	771, 573		
5 6 7 8 9	Cape Vincent, New York Charlotte, New York Chaumont, New York Dexter, New York Henderson, New York	270		3				350 35 419			350, 000 100 1, 480		
0 1 2 3	Millins Bay, New York. Oak Orchard, New York. Olcott, New York. Oswego, New York. Pultneyville, New York	215	19, 297	1 16, 434	78, 340		47	1	506	: .			
5 6 7 8 9	Sacketts Harbor, New York Sandy creek, New York Sodus Point, New York Wilson, New York Youngstown, New York Fair Haven, New York	6, 508 622 24, 846		1	4, 649		553			60	3, 406 482 12, 935	•	
1	St. Lawrence river		27, 059		29, 731		23	1, 042	666	5, 827	180, 301		2, 580
2	Alexandria Bay, New York Chippewa Bay, New York Clayton, New York Massena, New York Grindstone Island, New York	6, 828 1, 702	1		5				6	1 54 90 188	2, 933 3, 549 1, 500 122	16	
7 8	Morristown, New York Ogdensburg, New York Theusand Laland Park, New York Waddington, New York	662, 904		131, 907		46, 770			660	5, 440 2 52	40,000 131,587 110 500	2, 587	2, 58

TIONS—Continued.

SHIPMENTS BY EXTENDED LIST OF COMMODITIES, ETC.—Continued.

	8-continu	AND QUAR- ed.		OTHER I	PRODUCTS.				M.A	NUFACTURES	3.			Miscella
tone (all kinds).	Salt.	Other.	Animal products,	Live stock.	Lumber.	Ice.	Petro- leum.	Sugar.	Iron, pig and bloom.	Other iron manufác- tures.	Liquors.	Cement, brick, and lime.	otner	neous merchan dise and other con modities
364, 380	50, 988	10, 812	59, 820		2, 450, 780	l	334		88, 002		1, 750	122, 520	11,666	576, 80
2, 250 9, 060 138, 327	25, 290 8, 674	3, 639	59, 820			l::::::::				12, 441	i		11,666	429, 68 11, 30
.					17, 850 878 10, 388				·		1	,		7, 45
181, 125 4, 800 13, 926	71 4, 905				18, 471 6, 866 87, 040	1				! !				20
12, 822	9, 729	92			287, 507 1, 029, 720				1		 	10, 464		
1, 738		212	9 9	592	320, 242	18,912	l'			1			312	11, 80
8		12	9	563	16, 014 1 2, 9 12 125				22	!		! 		
	77	200		12	436 316							53		
	50				650 162 283, 058									9,82
1, 730	. 2			12	759 450				:		 	56 50		84
		 			288 1, 479 75 3, 518	6, 974			,		l		' '	
4, 450	29		712	76	146, 922	11,936			1		i			1
	29		7	16	826 30				ļ	2, 015		14	11	119
			76	58	2, 376							4	12	63
4, 450			200 426	2	6, 863 136, 773		662 23, 580				200			500 122, 71
			3		23		 							•••••

TRAFFIC OPERA

TABLE 13.—TOTAL FREIGHT MOVEMENT BY EXTENDED LIST OF COMMODITIES—TOTAL SHIPMENT AND RECEIPTS—GIVEN ONLY BY LAKE

	•				PRODUCT	B OF AGRIC	CULTURE					UARRIES.	AND
	LAKES AND HIVER.	Total.	Wheat.	Corn.	Other grain.	Mill products.	Fruit.	Hay.	Pota- toes.	Other.	Coal and coke.	Iron ore.	Other ore.
	Receipts and shipments	51, 203, 106	1, 888, 312	3, 513, 515	980, 514	1,886,189	26, 984	18, 077	3, 698	132, 517	11, 268, 270	15, 303, 180	71, 56
2	Lake Superior Lakes Huron and St. Clair	3, 373, 807	110,663	55, 134 38, 448	1, 846 22, 479	205, 720 16, 792	186 2, 537	298 2. 764	426 108	965 1, 828	1, 780, 750 376, 321	4, 151, 748 180, 090	29, 44
5	Lake Michigan Lake Erie Lake Ontario	19, 343, 875 1, 256, 947	978, 733 20, 483	1, 778, 318 1, 493, 145 16, 439	500, 596 336, 684 89, 178	738, 833 878, 067 7	23, 567 390 281	12, 722 446 805	1, 988 510	72, 174 48, 380 3, 343	2, 865, 278 5, 294, 047 771, 573	4, 451, 577 6, 517, 162	39, 54
1	St. Lawrence river	· <u></u>	-	132, 031	29, 731	46, 770	. 23	1, 042	666	5.827	180, 301	2, 603	2.58
	Receipts			1, 583, 901	477 397	992, 066	. 800	7,972		58, 766	5, 162, 471	7, 626, 073	42. 12
	Lake Superior Lakes Huron and St. Clair	2, 491, 149 1, 029, 356	29, 246	22 10, 6 88	464 16, 275	493 11, 963	176 147	233 234	367	131	1, 754, 675 362, 747	10, 691 117, 639	
	Lake Michigan Lake Erie			6, 209 1, 418, 617	10, 625 331, 124	118, 423 814, 410	309 140	5, 666 446		6, 877 48, 165	2, 865, 021 97, 865	1, 004, 630 6, 490, 518	
	Lake Ontario	485, 220 492, 032		16, 438 131, 927	89, 178 29, 731	46,770	23 23	351 1,042	510 666	3, 274 319	7, 218 74, 945	2, 595	2,58
1	Shipmenta	25, 266, 974	969, 150	1, 929, 614	503, 117	894, 123	26, 184	10, 105	2, 024	73, 751	6, 105, 799	7, 677, 107	29, 44
	Lake Superior	5, 434, 781 2, 344, 45:		55, 112 27, 760	1, 382 6, 204	205, 227 4, 829	10 2, 390	65 2, 530	59 108	834 1. 828	26, 075 13, 574	4, 141, 057 62, 451	29, 44
1	Lake Michigan	10, 090, 366	347, 466	1, 772, 109	489, 971	620, 410	23, 258	7,056	1,857	65, 297	257	3, 116, 917	
	Lake Erie		140, 912	74, 528 1	5, 560	63, 657	250 276	454		215 69	5, 196, 182 764, 355	26, 644	
į	St. Lawrence river			104]		5, 508	105, 356	8	

TIONS—Continued.

OF ALL THE COMMODITIES EMBRACED WITHIN THE 4 COMPREHENSIVE CLASSES TREATED OF IN TABLE 7, BUT AND RIVER TOTALS.

	TS OF MINI			OTHER !	PRODUCTS.				MAN	FACTURES.				Miscella- neous merc han
tone (all kinds).	Salt.	Other.	Animal products.		Lumber.	Ice.	Petroleum.	Sugar.	Iron. pig and bloom.	Other iron manufac- tures.	Liquors.	Cement, brick, and lime.	Other.	dise and other commodi- ties.
547, 229	549, 350	23, 587	123, 495	2, 086	12, 205, 655	18, 912	52, 582	103, 317	316, 224	320, 303	14, 236	181, 462	28, 735	1, 623, 115
87, 276	20, 142	3, 627	1, 808	106	476, 067		20, 322	2, 048	48, 287	182, 333	324	20, 580	-	437, 140
25, 975	78, 523	4, 674		175	2, 426, 4 85		69u		32, 723	6 479	54		١	26, 415
63, 410	399, 539	4. 262	61, 146	1, 137	6, 385, 159		6, 852	101, 269	147, 190	110, 024	11, 908	18, 572	16, 731	446, 984
364, 380	50, 988	10, 812	59, 820	! <u></u>	2, 450, 780		334		88, 002	19, 122	1,750	122, 520	11,666	576, 807
1,738	129	212	. 9	592	320, 242	18, 912	142	1	22	30		188	312	11,800
4, 450			712	76	146, 922		24, 242		·	2, 015	200	18	23	123, 969
311, 015	296, 513	15, 997	63, 513	1,215	6, 857, 257	18, 912	28, 120	100, 434	162. 248	300, 939	9, 650	58, 256	16,750	822, 911
69, 587	20, 119	· –	301	70	7, 910		20, 249	2, 032	21, 623	182, 329	310	20, 116		379, 251
25, 975	25.043	771	l ^ı		390, 434		690	!	11, 241	6, 302		9, 411	1	
51, 944	225, 582	4, 202	2,671	477	3, 548, 923		6, 847 334	98, 402	46, 717	109, 575	9, 140	9, 674	4, 761	
161,779	25, 661	10, 812	59, 820	; - 	2, 444, 580	!. .	334		82. 667	718	,	18, 872	11,666	
1, 730	79	212	9	592	320, 230	18, 912	j					165	300	5, 527
••••• _•	29	•••••	712	76	145, 180			····	¦ 	2, 015	200	18	23	26, 122
236, 214	252, 837	7, 500	59, 982	871	5, 348, 398		24, 462	2, 883	153, 976	19, 364	4, 586	123, 206	11, 985	800, 204
17, 689	23	3. 627	1, 507	36	468, 157	l	73	16	26, 664	4	14	464	1	57, 889
	53, 480	3, 903	i <u></u> <u></u> -		2, 036, 051				21, 482	177	54	10, 173		
11, 466	173, 957	60	58, 475	660	2,836,236		i 5	2, 867	100, 473	449	2,768	8, 898	11,973	107, 451
202, 601	25, 327				6, 200	1			5, 335	18, 704	1,750	103, 648	۱. <u></u> .	514, 879
8	50				12		142		22	30		23	, 12	6, 273
4, 450		. .			1,742		24, 242	1	1				· · • · · · · ·	97, 847

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TABLE 14.—FREIGHT MOVEMENT OF UNCLASSIFIED COMMODITIES, NOT INCLUDED IN

PORTS.		DISE (PACK- ES).		POLES (NUM- BER).	WHITE LEA	LD (POUNDS).		AGES).		OLD GOODS OTS).	VEHICLE	(NUMBER
ļ	Receipts.	Shipments.	Receipts	Shipments	. Receipts.	Shipments.	Receipts.	Shipments.	Receipts.	Shipments.	Receipts.	Shipmer
Total	5, 656, 206	3, 281, 196		4, 071		500		42		13.	<u> </u>	1
Alpena				. 2,950					·			
Ashtabulai	87				• • • • • • • • • •							
Charlevoix		1, 990, 726		-'	•: •••••			· · · · · · · · · · · · · · · ·	, 		į	
Chicago Grand Haven	106, 665	244, 959		-;		1	,					
Green Bay	23, 925	1, 735			.1	500	1	42	J	13		1
Lorain				1, 121	1							
Michigan city Montague		5, 300		-:	-, ¹							
Montague Muskegon	19, 050 256, 988	1, 800 122, 976	· · · · · · · · · · · · · · · · · · ·						!			
Racine			1				1		i		į	
St. Ignace	37, 565	879, 980	;;	· · · · · · · · · · · · · · · · · · ·					1			
St. Joseph	20, 800	33, 720			·[[·	
South Chicago	18, 922		(! ()	• •••••	-	•••••	•••••	•••••	,		.1	•••••
		DERS (NUM- RR).	TOYS	S (CASES).	CABBAGE	(NUMBER).		ASES (NUM- CR).	JARS	(CASES).	CROCKE	RY (CASES
PORTS.	Receipts.	Shipments.	Receipte	Shipmente	Receipts.	Shipments.	Receipts.	Shipments.	Receipts	Shipments.	Receipts	Shipme
Total	1,000		25		2,000		696		260		209	
Alpena												-
Grand Haven			;						!	1		
Green Bay	1,000		25		. 2,000		1.96		269		239	
Lorain			! !		· j		·				! 	.
Michigan city Mellins Bay	••••					••••		· · · · · · · · · · · · · · ·		•••••		
Montague		·	'I									
Muskegon			'				!	•••••	, 	·	.;	
Olcott			. 	!		· · · · · · · · · · · · · · · · · · ·					!	
Racine												
St. Ignace St. Joseph	•••••				. ,	;					;	
South Chicago												
				<u> </u>	1	·						
PORTS.	ONIC	ONS (POUNDS)		CHESTNUTS	(POUNDS).	QUINCE	8 (POUNDS).	PARIS	IG PINS (NU	MBER).	THRASHING (NUMI	MACHINE BER).
	Receipte	s. Shipu	ents.	Receipts.	Shipments.	Receipts.	Shipmen	ts. Recei	pts. Ship	oments. R	eceipts.	Shipmen
Total			800 .		100		. 2	00		7, 000		:
Oloutt		!	800 .		100		. 20	00				
Oscoda			-	.			.			7,000		• • • • • • • • • • • • • • • • • • • •
Racine				-	• • • • • • • • • • • • • • • • • • • •	-1				• • • • • • • • • • • • • • • • • • • •	••••••	;
St. Joseph				:::::::::::::::::::::::::::::::::::::::						 	············	• • • • • • • • • • • • • • • • • • •
Sault Ste. Marie						1		1			•	

TIONS—Continued.

THE FOREGOING TABLES, AND GIVEN BY THEIR VARIOUS UNITS OF MEASUREMENT.

URNITURE	(BUNDLES).	EMPTY BA	erels (num- er).	JUGS (NUMBER).	TRUNKS	(NUMBER).	SASH (P.	ACKAGES).	PIANOS	(NUMBER).	PULP	(BALES).
leceipts.	Shipments.	Receipts.	Shipments.	Receipts.	Shipments	Receipts.	Shipments.	Receipts.	Shipments.	Receipts	Shipments	Receipts.	Shipmente
	29	1,242	6, 200		450		8, 031		25		1	560	
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	29	1, 242	6, 200		450		31	ļ	25	' 	1	560	i
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CURRANTS	(BARRELS).	RAILRO	OAD IRON ARS).	TOBACC	O (CASES).	PISH POLE	ES (NUMBER).	BARLEY	(BUSHELS).	SUNDRIES	(PACKAGES)	BLACKBE	RRIES (GAL-
Receipts.	Shipments.	Receipts.	Shipments.	Receipts.	Shipments	Receipts.	Shipments.	Receipts.	Shipments.	Receipts	Shipments	. Receipts	Shipmente
30		558		159		1,600	1,845	4		110, 277	96, 189		10
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	· · · · · · · · · · · · · · · · · · ·			۱								-	
30	· · · · · · · · · · · · · · · · · · ·	558	1	159		1,600				! 		-	
30			1	i _i	1	2,000	1			1		<u>'</u>	
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		<u> </u>	·	1			1,845	· · · · · · · · · · · · · · · · · · ·		110, 277	96, 189		
	••••••				!		1,010			110,211			10
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PAN MIL	ls (number)	. FERD	CUTTERS (NU	MBER).	SALT FISH (P	ACKAGES).	BASKET	3 (BUNDLES).	ROPE (COEL	B).	SPIKES	(KEG6).
Receipts.	Shipmen	ta. Rece	ipts. Ship	ments.	Receipts.	Shipments.	Receipts.	Shipmer	nts. Recei	pts. Shi	pments.	Receipts.	Shipments
	. 8	00		100		4, 454		. 83, 0	860	66	49		5
		00		100		4, 454	-					:	• • • • • • • • • • • • • • • • • • •
		11 .					. H	. 33,6	marail ()	1	13	1	

TRAN—Pt. 2——22

TRAFFIC OPERATIONS—Continued.

TABLE 15.—FREIGHT MOVEMENT OF UNCLASSIFIED COMMODITIES—REDUCTION OF THE UNCLASSIFIED COMMODITIES FROM THEIR VARIOUS UNITS OF MEASUREMENT INTO THE UNIFORM UNIT OF TONS.

COMMODIFIES.		ON AND NUMBER OF F MEASUREMENT.	Esti- mated weight	Estimated result in	COMMODITIES.		ON AND NUMBER OF OF MEASUREMENT.	Esti- mated weight	Estimated result in
	Number.	Unit.	in pounds per unit.	tons.		Number.	Unit.	in pounds per unit.	tons.
Total	9, 220, 235		a99. 95	460, 777, 23	Jars		Cases	150.00	19.5
			·		Crockery		do	500.00	59.7
erchandise	0 027 409	Packages	100.00	446, 870, 10	Currants		Barrels	150.00	2. 2
and poles	4, 071	Pound poles		1, 119. 53	Railroad iron		Bars	500.00	139. 5
hite lead	500	Pounds	1.00	0. 25	Tobacco	159	Cases	450.00	35. 7
ousehold goods	42	Packages		2. 10					
ousehold goods		Lots		0. 65	Fish poles	3, 445	Fish poles	5.00	8, 6
Duscinora goods	10	2000	i 100.00	0.00	Barley	4	Bushels		0. 1
bicles	13	Vehicles	200.00	1. 30	Sundries	206, 466	Packages	100.00	10, 323. 3
rniture	29	Bundles		1. 45	Blackberries	10	Gallons	10.00	0. 0
mpty barrels	7, 442	Empty barrels		297. 68	Onions	800	Pounds	1.00	0.4
gs	450	Juga		2. 25	l			1	
		0 ug.,	10.00		Chestnuts	100	do	1.00	0.0
unks	8, 031	Trunks	50.00	200.78	Quinces		do	1.00	0. 1
sh	25	Packages		1. 25	Paring pins	7, 000	Paring pins	1.00	3. 5
ano	ī	Piano		0.40	Thrashing machines	30	Thrashing machines	6,000.00	90.0
ılp	560	Bales	100.00	28.00	Fan mills	300	Fan mills	500, 00	75. 0
					Feed cutters	100	Feed cutters	500, 00	25. 0
wine binders	1,000	Twine binders	300.00	150, 00	Salt fish	4, 454	Packages	200.00	445. 4
0.8	25	Cases		1. 25	Baskets	33, 660	Bundles	50.00	841.5
bbages	2,000	Cabbages	10.00	10.00 ;	Rope	115	Coils	200.00	11.5
mpty cases	696	Empty cases		8. 70	Spikes	5	Kegs		0. 2

a Average weight per unit.

TABLE 16.—FREIGHT MOVEMENT BY CARGO TONNAGE—RESULT IN TONS OF THE LAKE AND RIVER FREIGHTING, GROUPED BY PRINCIPAL COMMODITIES, AND REACHED BY MAKING AN AGGREGATE OF EACH PORT'S LARGER BUSINESS, WHETHER OF RECEIPTS OR SHIPMENTS.

[Canadian coastwise trade excluded.]

COMMODITIES.	Amount in tons.	Per cent of commodi- ties and class to total ton- nage.	соммодітіка.	Amount in tons.	Per cent of commodities and class to total tonnage.
Total	27, 394, 767	100. 00	Class II.—Continued. Iron ore	7,677,107	28.02
Class I.—Products of agriculture	4, 506, 011	16. 45	Stone (all kinds)	311, 015 296, 513 58, 117	1. 14 1. 08 0. 21
Wheat	1, 929, 614	3. 54 7. 04	-		:
Other grain	503, 117 992, 066	1. 84 3. 62	Class III.—Other products	6, 921, 985	25. 27
Mill products	112, 064	0.41	Animal productsLumber	64, 728 6, 857, 257	0. 24 25. 03
Class II.—Products of mines and quarries	14, 448, 551	52.74			
Coal	6, 105, 799	22. 29	Class IV.—Manufactures, miscellaneous merchan- dise, and other commodities.	1. 518, 220	5. 54

TABLE 17.—PASSENGER TRAFFIC—PASSENGER MOVEMENT ON ALL THE LAKES AND ST. LAWRENCE RIVER, THE ENTRIES ACCREDITED TO THE PRINCIPAL PORTS AND DIVIDED INTO THE CLASSES OF REGULAR, EXCURSION, AND FERRY PASSENGERS.

LAKES AND RIVER.	Total.	Regular.	Excursion.	Ferry.	LAKES AND RIVER.	Total.	Regular.	Excursion.	Ferry.
Total	2, 235, 993	775, 871	836, 648	623, 474	Lake Erie	598, 885	114, 768	369, 924	114, 193
Lake Superior	155, 609	78, 131	8, 407	69, 071	Buffalo	122, 419 43, 815	35, 399 21, 355	46, 738 22, 460	40, 282
Duluth	7, 010 148, 599	78, 131	7, 010 1, 397	69,071	Sandusky Suspension Bridge Toledo	173, 696 1, 909 257, 046	57, 260 754	43, 530 150 257, 046	72, 906 1, 005
Lake Huron	755, 516	315, 120	189, 468	250, 928	Lake Ontario	129, 296	66, 840	62, 456	
DetroitPort Huron	406, 317 349, 199	233, 196 81, 924	173, 121 16, 347	250, 928	Cape Vincent Oswego Rochester	50, 467 31, 540 47, 289	45, 422 2, 000 19, 418	5, 045 29, 540 27, 871	1
Lake Michigan	506, 696	197, 458	123, 230	186, 008	St. Lawrence river	89, 991	3, 554	83, 163	3,274
Chicago Grand Haven Milwaukee	110, 093 329, 870 66, 733	11, 182 177, 302 8, 974	56, 511 8, 960 57, 759	42, 400 143, 608	Alexandria Bay Clayton Ogdensburg	12, 600 446 76, 945	3, 554	12, 600 446 70, 117	3, 274

Table 18.—FREIGHT VALUES—STATEMENT SHOWING ESTIMATED VALUE OF THE LAKE FREIGHT COMPUTED ON THE BASIS OF CARGO TONNAGE IN TABLE 16.

COMMODITIES.	Number of tons.	Estimated value per ton.	Estimated value of total tons.	COMMODITIES.	Number of tons.	Estimated value per ton.	Estimated value of total tons.
Total	27, 394, 767	\$13.12	\$350, 482, 437	StoneSalt	311, 015 296, 513	\$10.00 10.00	\$3, 110, 150- 2, 965, 130
Wheat	969, 150	32. 67	31, 662, 131	Other products of mines and quar- ries.	58, 117	155. 38	9, 030, 140
Corn	1, 929, 614	15.00	28, 944, 210	Animal products	61, 728	100.00	6, 472, 800
Other grain	992, 066	39. 22 50. 00	19, 732, 249 49, 603, 300	Lumber	6, 857, 257	10. 30	70, 629, 747
All other farm products	112.064 6, 105, 799 7, 677, 107	89. 79 3. 50 3. 05	10, 062, 215 21, 370, 297 23, 415, 176	chandise, and other commodi- ties. (a)	1, 518, 220	54. 33	82, 484, 892 :

 $[\]alpha$ Not including the unclassified merchandise given in Table 15 .

EARNINGS AND EXPENSE ACCOUNTS.

Table 19.—Financial account in general—gross earnings, expenses, and net earnings of 1,841 reporting (a) craft given separately by steamers, sailing vessels, and unrigged, and entered for each port and each lake.

	ALL CRAFT.			STEA	MERS-Continue	1.	
PORTS.	Gross earnings.	Expenses.	Net earnings.	PORTS.	Gross earnings.	Expenses.	Net earnings.
Total	\$24, 369, 895	\$19, 443, 241	\$4, 926, 654	Lake Ontario	\$140,339	\$129,829	\$10,510
Lake Separior	1, 197, 596	1, 029, 151	168, 435	Cape Vincent	56, 843 35, 235	50, 310 33, 703	6, 533 1, 532
Marquotto		77, 585 951, 566	14, 596 153, 839	Oswego	48, 261	45, 816	2, 445
Inke Huron	6, 955, 133	5, 349, 465	1, 605, 668	St. Lawrence river	335, 250	234, 673	100, 577
MA Andrei	'			Alexandria Bay	12, 197 1, 100	8, 612 634	3, 583 400
tron		2, 812, 931 2, 536, 534	979, 669 625, 999	Ogdensburg		225, 427	96, 526
Laim Minister	5, 826, 148	4, 843, 159	982, 989	SAIL	ING VESSELS.		
Chienge		1,844,654	266, 658	W	0 100 101	* *10 *00	000 000
Grand Haven		1, 127, 899 1, 870, 606	188, 631 527, 700	Total	6, 480, 424	5, 513, 536	966, 886
	1 6 5 5 1	1,010,000	021,100	Lake Superior	216, 729	189, 636	27,093
Lake Erie	9, 649, 090	7, 621, 541	2, 027, 549	Duluth			č
Buffalo	2, 785, 853	2, 194, 577	591, 276	Marquette	216, 729	189, 636	27, 000
Cleveland Erie		3, 441, 929 719, 905	902. 768 166. 729	1	1 0 100 515	1 200 Ent	
SanduskySuspension Bridge	868, 840	683, 054	185, 786	Lake Huron	2, 168, 585	1, 786, 731	381, 854
Suspension Bridge	200, 321 562, 745	166, 026 416, 050	34, 295 146, 695	Detroit	847, 471 1, 321, 114	683, 159 1, 103, 572	164, 312 217, 542
Lake Ontario	335, 483	302.658	32, 825	Lake Michigan	1, 703, 669	1, 467, 024	236, 645
Cape Vincent	104, 713	88, 069	16, 644	Chique	729, 614	630, 888	98,726
Rochester	133, 255 97, 515	127, 157 87, 432	6, 098 10, 083	Chicago. Grand Haven. Milwaukee	352, 229 621, 826	317, 381 518, 755	34, 848 103, 071
St. Lawrence river	406, 455	297, 267	109, 188	Lake Erie	2, 179, 345	1, 881, 839	297, 446
Alexandria Bay	12, 197	8,612	3,585	Buffalo	409, 487	352, 903	56, 584
Clayton	1, 100 393, 158	288, 021	466 105, 137	Cleveland Erie	1, 128, 842	992, 019	136, 821
	1	277.175	2111.641	Sandusky Suspension Bridge	18, 918 346, 526	13, 980 284, 759	4, 938 61, 767
	STEAMERS.			Suspension Bridge Toledo	. 84, 191 . 191, 381	72, 861 165, 377	11, 330 26, 004
Total	17, 808, 329	13, 861, 485	3, 946, 844	Lake Ontario	. 195, 144	172, 829	22, 315
Lake Superior	962, 150	825, 688	136, 462	Cap⇔ Vincent	47, 870	37, 759	
Duluth	92, 181	77, 585	14, 596	()swego	. 98.020	93, 454	10, 111 4, 566
Marquette		748, 103	121, 866	Rochester	49, 254	41, 616	7, 638
Lake Huron	4, 786, 548	3, 562, 734	1, 223, 814	St. Lawrence river	1 - !-	15, 417	1, 535
Detroit	2, 945, 129	2, 129, 772	815, 357	Alexandria Bay	·	•••••	·
Port Huron	1, 841, 419	1, 432, 962	408, 457	Ogdensburg	16, 952	15, 417	1, 53
Lake Michigan	4, 122, 479	3, 376, 135	746, 344		UNRIGGED.		
ChicagoGrand Haven	1, 381, 698 964, 301	1, 213, 766	167, 932				
Milwaukee	1, 776, 480	810, 518 1, 351, 851	153, 783 424, 629	Total	81,142	68, 220	12, 92
Lake Erie	7, 461, 563	5, 732, 426	1, 729, 137	Lake Superior: Marquette	18, 707	13, 827	4, 88
Buffalo	2, 368, 184	1, 834, 458	533, 726		30,131	204 000	. 4.00
Cleveland		2, 449, 910 705, 925	765, 945 161, 791	Lake Erie: Buffalo	8, 182	7, 216	96
Sandusky	522, 314	398, 295	124, 019		,,,,,	.,	-
Suspension Bridge Toledo		93, 165 250, 673	22. 965 120. 691	St. Lawrence river: Ogdensburg	54, 253	47, 177	7,07

a Steamers, 1,072; sailing vessels, 758; unrigged, 11. See supplementary table below.

SUPPLEMENTARY—ESTIMATED GROSS EARNINGS, EXPENSES, AND NET EARNINGS OF 896 CRAFT NOT REPORTING THESE ITEMS, THE ESTIMATE BEING BASED ON THE FIGURES ACTUALLY REPORTED FOR 1,841 CRAFT.

	Number	Gross	Expenses.	Net earnings.	CT AGG ON VINGERIA	Number	Gross	Expenses.	Not carnings.
CLASS OF VESSELS.	vessels.	earnings.	Expenses.	Net earnings.	CLASS OF VESSELS.	of vessels.	earnings.	Expenses.	Not earnings.
Total	896	\$11,003,957	\$8, 448, 811	\$2,645,146	Sailing vessels		\$1, 760, 221 2, 192, 798	\$1,497,593 1,843,591	\$362, 636 349, 307
Steamers	395	7, 140, 938	5, 107, 627	2, 033, 311	!			1	

EARNINGS AND EXPENSE ACCOUNTS-Continued.

TABLE 20.—EXPENSE ACCOUNT IN DETAIL—ITEMIZED EXPENSE ACCOUNT OF 1.841 REPORTING (a) CRAFT, GIVEN SEPARATELY, FOR STEAMERS, SAILING VESSELS, AND UNRIGGED, SUBDIVIDED INTO THE VARIOUS ITEMS CONSTITUTING THE RUNNING AND SHORE EXPENSES.

ALL CRAFT.

LAKES AND RIVER.	Class.	Total expenses.	Port charges.	Wages.	Provisions.	Current repairs.	Fuel for the steamers.
Total	All classes	\$19, 443, 241	\$895, 140	\$5, 676, 802	\$1, 322, 925	\$1,681,694	\$2,975,91
reat Lakes and St. Lawrence river	Steam Sail Unrigged	13, 861, 485 5, 513, 536 68, 220	412, 193 465, 248 17, 699	4, 235, 980 1, 422, 957 17, 865	990, 678 328, 207 4, 040	1, 158, 494 522, 557 643	2, 975, 91
ake Superior	All classes	1, 029, 151	67, 771	322, 173	80, 209	76,515	200, 46
	Steam	825, 688 189, 636	40, 450 24, 189	279, 093 40, 307	6 6, 671 12, 678	57, 364 18, 849	200, 40
Duluth	Unrigged	13, 827 77, 585	3, 132	2, 773 32, 149	860 6, 537	302 7, 995	15, 00
Marquette	All classes	951, 566	67, 769	290, 024	73, 672	68, 520	185, 3
	Steam Sail Unrigged	748, 103 189, 636 13, 827	40, 448 24, 189 3, 132	246, 944 40, 307 2, 773	60, 134 12, 678 860	49, 3 6 9 18, 849 302	185, 3
ake Huron	All classes	5, 349, 465	346, 364	1, 475, 828	363, 117	527, 793	745, 11
	Steam	3, 562, 734 1, 786, 731	124, 394 221, 970	1, 105, 881 369, 947	271, 668 91, 449	348, 815 178, 978	745, 1
Detroit	All classes	2, 812, 931	67, 949	766, 335	201. 964	307, 339	411,0
	Steam Sail	2, 129, 772 683, 159	38, 091 29, 858	626, 589 139, 746	169, 535 32, 429	248, 556 58, 783	411, 07
Port Huron	All classes Steam	2, 536, 534 	278, 415 86, 303	709, 493 	161, 153	220, 454	384,0
	Sail	1, 103, 572	192. 112	230, 201	102, 133 59, 020	1 99 , 259 120, 195	334, 0
ake Michigan	All classes	4, 843, 159	312, 993	1, 666, 268	366, 462	426, 488	025, 0
	Steam Sail	3, 376, 135 1, 467, 024	169, 067 143, 926	1, 140, 815 525, 453	256, 676 109, 786	253, 580 172, 908	625, 0
Chicago	iii	1, 844, 654	87, 047	667, 549	140, 394	162, 602	227, 7
	Steam	1, 213, 766 630, 888	31, 262 55, 785	446, 404 221, 145	94, 397 45, 997	82, 289 80, 313	227, 70
Grand Haven	All classes	1, 127, 899	60, 315	424, 532	92, 245	95. 430	148, 4
	Steam	810, 518 317, 381	21, 875 38, 440	305, 414 119, 118	65, 822 26, 4 23	66, 611 28, 819	148, 4
Milwaukee	-	1, 870, 606	165, 631	574, 187	133, 823	168, 456	248,9
	Steam Sail	1, 351, 851 518, 755	115, 930 49, 701	388, 997 185, 190	96, 457 37, 366	104, 680 6 3, 77 6	248, 9
ake Erie	All classes	7, 621, 541	125, 324	2, 021, 736	461, 289	621, 563	1, 333, 8
	Steam Sail Unrigged	5, 732, 426 1, 881, 899 7, 216	59, 450 65, 874	1, 591, 422 423, 148 7, 166	368, 247 93, 042	478, 706 142, 807 50	1, 333, 8
Buffalo	All classes	2, 194, 577	29, 766	611, 058	142, 982	166, 848	528, 3
	Steam Sail	1, 834, 458 352, 903 7, 216	20, 292 9, 474	533, 468 70, 424 7, 166	127, 336 15, 646	148, 119 18, 679 50	528, 3
Cleveland	1	3, 441, 929	38. 919	875, 722	179, 694	298. 118	498, 9
	Steam	2, 449, 910 992, 019	14, 960 23, 959	652, 146 223, 576	131, 313 48, 381	218, 854 79, 264	498, 9
Erie	All classes	719, 905	2, 941	176. 716	49, 445	67, 877	145, 2
	Steam Sail	705, 925 13, 980	2, 937	174, 087 2, 620	48. R21 624	67, 103 774	145, 2
Sandusky	All classes	683, 054	40, 608	196, 222	49, 669	42, 306	90, 6
	Steam Sail	398, 295 284, 759	20, 132 20, 476	127, 533 68, 689	38, 52 8 16, 161	19, 006 23, 300	90, 6
Suspension Bridge	All classes	166, 026	21	37, 905	10, 743	15, 581	23,6
	Steam Sail	93, 165 72, 861	5 16	26, 355 11, 550	7, 415 3, 32 8	11, 199 4, 382	22,0
Toledo		416, 050	13, 069	124, 113	28, 736	30, 833	47,0
a Steame	Steam	250, 673 165, 377	4, 057 9, 012	77. 833 46, 280	19, 834 8, 902	14, 425 16, 408	47, 90

EARNINGS AND EXPENSE ACCOUNTS—Continued.

TABLE 20.—EXPENSE ACCOUNT IN DETAIL, ETC.—Continued.

ALL CRAFT—Continued.

LAKES AND RIVER.	Class.	Total expenses.	Port charges.	Wages.	Provisions.	Current repairs.	Fuel for the steamers.
Lake Ontario	All classes	\$302,658	\$10,071	\$122, 204	\$ 32, 931	\$19,019	\$24, 818
	Steam	129, 829 172, 829	800 9, 271	61, 991 60, 213	13, 599 19, 332	10, 704 8, 315	24, 818
Cape Vincent	All classes	88, 069	3, 203	37, 421	17, 065	5, 147	11,724
	Steam	50, 310 37, 759	290 2,913	21, 485 15, 936	7, 624 9, 441	3, 812 1, 335	11,734
Oswego	All classes	127, 157	6, 308	46, 012	9, 550	8, 383	6, 083
	Steam	33, 703 93, 454	6, 308	16. 726 29, 286	2, 979 6, 571	2, 207 6, 176	6, 083
Rochester	All classes	87, 432	560	38, 771	6, 316	5, 489	7. 011
	Steam	45, 816 41, 616	510 50	23, 780 14, 991	2, 996 3, 320	4, 685 804	7, 011
St. Lawrence river	All classes	297, 267	32, 617	68, 593	18, 917	10, 316	46, 658
	Steam Sail Unrigged	234, 673 15, 417 47, 177	18, 932 18 14, 567	56, 778 3, 889 7, 926	13, 817 1, 920 3, 180	9, 325 700 291	46, 658
Alexandria Bay	Steam	8, 612	206	3, 466	300	450	2. 242
Clayton	Steam	634		540			75
Ogdensburg	All classes	288, 021	32, 411	64, 587	18, 617	9, 866	44, 341
:	Steam Sail Unrigged	225, 427 15, 417 47, 177	17, 826 18 14, 567	52, 772 3, 889 7, 926	13, 517 1, 920 3, 180	8, 875 700 291	44, 341

EARNINGS AND EXPENSE ACCOUNTS—Continued.

TABLE 20.—EXPENSE ACCOUNT IN DETAIL, ETC.—Continued.

ALL CRAFT—Continued.

LAKES AND RIVER.	Class.	Other running expenses.	Commission.	Insurance.	Taxes.	Office expenses.	Other shore expenses.
Total	All classes	\$4, 353, 323	\$158, 863	\$885, 303	\$138,773	\$235, 085	\$1, 119, 418
Great Lakes and St. Lawrence river	Steam Sail Unrigged	2, 266, 582 2, 062, 546 24, 195	105, 079 53, 274 510	679, 453 203, 632 2, 218	108, 733 29, 990 50	235, 085	693, 298 425, 128 1, 000
Lake Superior	All classes	216, 176	1, 125	33, 066	4, 653	- 7, 993	19, 06
	Steam Sail Unrigged	131, 829 77, 667 6, 680	896 199 30	27, 852 5, 214	3, 946 657 50	7,993	9, 18 9, 87
Duluth	Steam	9, 583	•••••	1, 660	649	3, 939	10
Marquette	All classes	206, 593	1, 125	31, 406	4, 004	4, 054	19, 055
	Steam Sail Unrigged	122, 246 77, 667 6, 680	896 199 30	26, 192 5, 214	3. 297 657 50	4, 054	9, 179 9, 876
Lake Huron	All classes	1, 184, 879	30, 439	267, 757	42, 139	74, 911	291, 100
	Steam Sail	460, 967 723, 912	16, 581 13, 858	197, 838 69, 919	33, 914 8, 225	74, 911	182, 63 108, 47
Detroit	All classes	572, 104	15, 873	162, 817	25, 713	59, 079	222, 680
	Steam Sail	276, 308 295, 796	7, 9 02 7, 971	126, 847 85, 970	21, 749 3, 964	59, 079	144, 038 78, 64 2
Port Huron	All classes	612, 775	14, 566	104, 940	16, 426	15, 832	68, 428
•	Steam Sail	184, 659 428, 116	8, 679 5, 887	70, 991 33, 949	12, 165 4, 261	15, 832	38, 597 29, 83
Lake Michigan	All classes	888, 508	69, 743	181, 787	33, 500	80, 828	191, 51
	Steam Sail	501, 236 387, 272	61, 652 8, 091	154, 086 27, 701	27, 840 5, 660	80, 828	105, 28- 86, 22
Chicago	All classes	337, 904	49, 272	61, 793	5, 566	22, 563	82, 262
	Steam Sail	180, 794 157, 110	43, 943 5, 329	38, 793 23, 000	3, 845 1, 721	22, 563	41, 774 40, 48
Grand Haven	All classes	201, 737	3, 048	32, 357	8, 990	17, 140	43, 700
	Steam Sail	113, 850 87, 887	1,710 1,388	32, 267 90	7, 371 1, 619	17, 140	30, 053 13, 647
Milwaukee	All classes	348, 867	17, 423	87, 637	18, 944	41, 125	65, 549
•	Steam Sail	206, 592 142, 275	15, 999 1, 424	83, 026 4, 611	16, 624 2, 320	41, 125	33, 45° 32, 0 9 °
Lake Erie	All classes	1, 917, 147	49, 181	369, 298	57, 239	67, 408	597, 523
	Steam Sail Unrigged	1, 103, 575 813, 572	19, 962 29, 219	277, 325 91, 973	41, 831 15, 408	67, 408	390, 667 206, 856
Buffalo	All classes	495, 959	7, 936	74, 452	1,005	8, 495	127, 76
•	Steam Sail	329, 542 166, 417	4, 185 3, 751	53, 966 20, 486	580 425	8, 495	80, 160 47, 60
Cleveland	Unrigged All classes	904, 218	30, 086	239, 467	45, 364	43, 176	288. 217
	Steam	521, 452 382, 766	11, 685 18, 401	182, 141 57, 326	84, 383 10, 981	43, 176	140, 852 147, 366
Brie	All classes	114, 313	211	3, 099		••••	160, 044
	Steam Sail	107, 297 7, 016	211	3, 099			160, 044
Sandusky	All classes	207, 647	6, 835	31, 753	6, 993	3,508	6, 84
•	Steam	71, 419 136, 228	2, 563 4, 272	21, 915 9, 838	4, 503 2, 490	3, 508	3, 536 3, 308
Suspension Bridge	All classes	71, 394	410	1, 600	25	805	3, 930
	Steam	19, 239 52, 155	160 250	1, 600	25	805	2, 750 1, 180
Toledo	All classes	123, 616	3,703	18, 927	3, 852	11, 424	10, 72
	Steam	54, 626 68, 990	1, 158 2, 545	14, 604 4, 323	2, 340 1, 512	11, 424	3, 324 7, 405

EARNINGS AND EXPENSE ACCOUNTS—Continued.

TABLE 20.—EXPENSE ACCOUNT IN DETAIL, ETC.—Continued.

ALL CRAFT—Continued.

LAKES AND RIVER. Class	Other running expenses.	Commission.	Insurance.	Taxes.	Office expenses.	Other shore expenses.
Lake Ontario	\$60, 235	\$3,543	\$11,681	\$694	\$933	\$16,529
Steam Sail		1, 636 1, 907	3, 556 8, 125	654 40	933	2, 836 13, 69 3
Cape Vincent All classe	9, 481	873	1,905	215	583	452
Steam Sail		518 355	937 968	200 15	583	202 250
Oswego	98 30. 202	2, 403	7, 460	33	1	10. 723
Stean Sail		1, 115 1, 288	1, 420 6, 040	8 25		1, 584 9, 139
Rochester All classe	20, 552	267	2, 316	446	350	5, 354
Steam Sail	3, 786 16, 766	3 264	1, 199 1, 117	446	350	1, 050 4, 304
St. Lawrence river All classe	86, 378	4, 832	21,714	548	3,012	3, 682
Steam .		4, 352	18, 796	548	3, 012	2, 683
Sail Unrigg	ed 8, 190 ed 17, 515	480	700 2, 218			1,000
Alexandria Bay Steam	1,948		: 		:	
Clayton Steam	19				!	! :
Ogdensburg All classe	98 84.411	4, 832	21, 714	548	3,012	3, 682
Steam .		4, 352	18, 796	548	3,012	2, 682
Sail Unrigg	ed 8, 190 17, 515	480	700 2, 218		,	1,000

TRANSPORTATION ON THE GREAT LAKES.

EARNINGS AND EXPENSE ACCOUNTS—Continued.

TABLE 20.—EXPENSE ACCOUNT IN DETAIL, ETC.—Continued.

STEAMERS.

LAKES AND RIVER.	Total expenses.	Port charges.	Wages.	Provisions.	Current repairs.	Fuel.
Total	\$13, 8ú1, 4 85	\$4 12, 193	\$4, 235, 980	\$990, 678	\$1, 158, 494	\$2, 975, 91
Lake Superior	825, 688	40, 450	279, 093	66, 671	57, 364	200, 400
Duluth	77, 585 748, 103	40, 448	32, 149 246, 94 4	6, 537 60, 134	7, 995 49, 369	15, 061 185, 344
Lake Huron.	3, 562, 734	124, 394	1, 105, 881	271, 668	348, 815	745, 136
Detroit	2, 129, 772 1, 432, 962	38, 091 86, 303	626, 589 479, 292	169, 535 102, 133	248, 556 100, 259	411, 078 334, 05
Lake Michigan.	3, 376, 135	169, 067	1, 140, 815	256, 676	253, 580	625, 07
Chicago Grand Haven Milwaukee	1, 213, 766 810, 518 1, 351, 851	31, 262 21, 875 115, 930	446, 404 305, 414 388, 997	94, 397 65, 822 96, 457	82, 289 66, 611 104, 680	227, 702 148, 403 248, 964
Lake Erie	5, 732, 426	59, 450	1, 591, 422	368, 247	478, 706	1, 333, 83
Buffalo Cleveland Erie Sandusky Suspension Bridge Toledo	1, 834, 458 2, 449, 910 705, 925 398, 295 93, 165 250, 673	20, 292 14, 960 4 20, 132 5 4, 057	533, 468 652, 146 174, 087 127, 533 26, 355 77, 833	127, 336 131, 313 48, 821 33, 528 7, 415 19, 834	148, 119 218, 854 67, 103 19, 006 11, 199 14, 425	528, 315 498, 946 145, 256 90, 652 23, 612 47, 048
Lake Ontario	129, 829	800	61, 991	13, 599	10, 704	24, 818
Cape Vincent Oswego Rochester	50, 310 33, 703 45, 816	290	21, 485 16, 726 23, 780	7, 624 2, 979 2, 996	3, 812 2, 207 4, 685	11, 724 6, 08 7, 011
St. Lawrence river	234, 673	18, 032	56, 778	13, 817	9, 325	46, 65
Alexandria Bay Clayton Ogdensburg	8, 612 634 225, 427	206 17, 826	3, 466 540 52, 772	300 13, 517	450 8,875	2, 24; 7; 44, 34
LAKES AND RIVER.	Other running expenses.	Commission.	Insurance.	Taxes.	Office expenses.	Other shore expenses.
Total	\$2, 266, 582	\$105, 079	\$679, 453	\$108,733	\$235, 085	\$693, 293
Lake Superior	131, 829	896	27, 852	3, 946	7, 993	9, 18
Duluth Marquette	9, 583 122, 246	896	1, 660 26, 192	649 3, 297	3, 939 4, 054	9, 175
Lake Huron	460, 967	16, 581	197, 838	33, 914	74, 911	182, 63
Detroit Port Huron.	276, 308 184, 659	7, 902 8, 679	126, 847 70, 991	21, 749 12, 165	59, 079 15, 832	144, 038 38, 59
Lake Michigan	501, 236	61, 652	154, 086	27,840	80, 828	105, 28
Chicago	180, 794 113, 850 206, 592	43, 943 1, 710 15, 999	38, 793 32, 267 83, 026	3, 845 7, 371 16, 624	22, 563 17, 140 41, 125	41, 77, 30, 05, 33, 45
Lake Erie	1, 103, 575	19,962	277, 325	41, 831	67, 408	390, 60
Buffalo	329, 542 521, 452 107, 297	4, 185 11, 685 211	53, 966 182, 141 3, 099	580 34, 383	8, 495 43, 176	80, 16 140, 85 160, 04
Sandusky Suspension Bridge	71, 419 19, 239 54, 626	2, 563 160 1, 158	21, 915 1, 600 14, 604	4, 503 25 2, 340	3, 508 805 11, 424	3, 53 2, 75 3, 32
Lake ()ntario	8, 302	1, 636	3, 556	654	933	2, 83
Cape Vincent	2, 935 1, 581 3, 786	518 1, 115 3	937 1, 420 1, 199	200 8 446	583 350	20 1, 58 1, 05
					1 '	
St. Lawrence river	60, 673	4, 352	18, 796	548	3,012	2, 680

EARNINGS AND EXPENSE ACCOUNTS—Continued.

TABLE 20.—EXPENSE ACCOUNT IN DETAIL, ETC.—Continued.

SAILING VESSELS.

L/KES AND RIVER.	Total expenses.	Port charges.	Wages.	Provisions.	Current repairs.	Fuel.
Total	\$ 5, 513, 536	\$46 5, 248	\$1, 422, 957	\$328, 207	\$522, 557	
ake Superior	189, 636	24, 189	40, 307	12, 678	18, 849	
Duluth	189. 636	24, 189	40, 307	12, 678	18, 849	
ake Huron	1, 786, 731	221, 970	369, 947	91, 449	178, 978	
Detroit	683, 159 1, 103, 572	29, 858 192, 112	139, 746 230, 201	32, 429 59, 020	58, 783 120, 195	!
ake Michigan	1, 467, 024	143, 926	5 25, 453	109, 786	172, 908	<u> </u>
Chicago	630, 888	55, 785	221, 145	45, 997	80, 313	
(}rand Haven	317, 381 518, 75 5	38, 440 49, 701	119, 118 185, 190	26, 423 37, 366	28, 819 63, 776	
ake Erie	1, 881, 899	65, 874	423, 148	93, 042	142, 807	
Buffalo	352, 903	9, 474	70, 424	15, 646	18, 679	
Cleveland Erie	992, 019 13, 980	23, 959 2, 937	223, 576 2, 629	48, 381 624	79, 264 774	
Sandusky	284, 759	20, 476	68, 689	16, 161	23, 300	
Suspension Bridge Toledo	72, 861 165, 377	9, 012	11, 550 46, 280	3, 328 8, 90 2	4, 382 16, 408	
ake Ontario	172, 829	9, 271	60, 213	19, 332	8, 315	
Cape Vincent	37, 759	2, 913	15, 936	9, 441	1,335	
Oswego. Rochester	93, 454 41, 616	6, 308 50	29, 286 14, 991	6, 571 3, 320	6, 176 804	
t. Lawrence river	15, 417	18	3, 889	1, 920	700	
Alexandria Bay						
Clayton Ogdensburg	15, 417	18	3, 889	1, 920	700	•••••
LAKES AND RIVER.	Other running expenses.	Commission.	Insurance.	Taxes.	Office expenses.	Other shore expenses.
Total	\$2,062,546	\$ 53, 274	\$203, 632	\$29, 990		\$425,
ake Superior	77, 667	199	5, 214	657		9.
Duluth Marquette	77, 667	199	5, 214	657	·	9,
ake Huron	723, 912	13, 858	69, 919	8, 225	!	108,
DetroitPort Huron	295, 796	7, 971	35, 970			78,
Fort Ruron	428, 116	5, 887	33, 949	3, 964 4, 261		
ake Michigan						29. 86.
ake Michigan	428, 116 387, 272	5, 887 8, 091	27, 701	5, 660	i	29,
	428, 116 387, 272 157, 110 87, 887	5, 887	33, 949	4, 261		29. 86. 40. 13.
ake Michigan Chicago Grand Haven Milwankee	428, 116 387, 272 157, 110 87, 887 142, 275	5, 887 8, 091 5, 329 1, 338	27, 701 23, 000 90	4, 261 5, 660 1, 721 1, 619	i	86, 40, 13, 32,
ake Michigan Chicago Grand Haven Milwaukee ake Erie Buffalo Cleveland	157, 110 87, 887 142, 275 813, 572 166, 417 382, 766	5, 887 8, 091 5, 329 1, 338 1, 424	27, 701 23, 000 90 4, 611	4, 261 5, 660 1, 721 1, 619 2, 320		29. 86. 40. 13. 32, 204.
ake Michigan Chicago Grand Haven Milwaukee Buffalo Cleveland Rrie	428, 116 387, 272 157, 110 87, 887 142, 275 813, 572 166, 417 382, 766 7, 016	5, 887 8, 091 5, 329 1, 338 1, 424 29, 219	27, 701 23, 000 90 4, 611 91, 973 20, 486 57, 326	4, 261 5, 660 1, 721 1, 619 2, 320 15, 408 425 10, 981		29, 86, 40, 13, 32, 206, 47, 147
ake Michigan Chicago Grand Haven Milwaukee ake Erie Buffalo Cleveland	157, 110 87, 887 142, 275 813, 572 166, 417 382, 766 7, 016 136, 228 52, 155	5, 887 8, 091 5, 329 1, 338 1, 424 29, 219	33, 949 27, 701 23, 000 90 4, 611 91, 973 20, 486	4, 261 5, 660 1, 721 1, 619 2, 320 15, 408		29, 86, 40, 13, 32, 204, 147
ake Michigan Chicago Grand Haven Milwaukee ake Erie Buffalo Cloveland Brie Sandusky Suspension Bridge Toledo	428, 116 387, 272 157, 110 87, 887 142, 275 813, 572 168, 417 382, 766 7, 016 136, 228 52, 155 68, 990	5, 887 8, 091 5, 329 1, 338 1, 424 29, 219 3, 751 18, 401 4, 272 250	33, 949 27, 701 23, 000 90 4, 611 91, 973 20, 486 57, 326 9, 838	4, 261 5, 660 1, 721 1, 619 2, 320 15, 408 425 10, 981 2, 490		29, 40, 13, 32, 204, 47, 147
ake Michigan Chicago Grand Haven Milwaukee ake Erie Buffalo Cleveland Erie Sandusky Suspension Bridge Toledo ake (Intario	428, 116 387, 272 157, 110 87, 887 142, 275 813, 572 166, 417 382, 766 7, 016 136, 228 52, 155 68, 990 51, 933	5, 887 8, 091 5, 329 1, 338 1, 424 29, 219 3, 751 18, 401 4, 272 250 2, 545 1, 907	33, 949 27, 701 23, 000 90 4, 611 91, 973 20, 486 57, 326 9, 838 4, 323	4, 261 5, 660 1, 721 1, 619 2, 320 15, 408 425 10, 961 2, 490 1, 512		29, 86, 40, 13, 32, 206, 47, 147, 147, 13
ake Michigan Chicago Grand Haven Milwaukee ake Erie Buffalo Cleveland Brie Sandusky Suspension Bridge Toledo	428, 116 387, 272 157, 110 87, 887 142, 275 813, 572 166, 417 382, 766 7, 016 136, 228 52, 155 68, 990 51, 933 6, 546 28, 621	5, 887 8, 091 5, 329 1, 338 1, 424 29, 219 3, 751 18, 401 4, 272 250 2, 545	33, 949 27, 701 23, 000 90 4, 611 91, 973 20, 486 57, 326 9, 838 4, 323 8, 125	4, 261 5, 660 1, 721 1, 619 2, 320 15, 408 425 10, 981 2, 490 1, 512 40 15 25		29, 86, 40, 13, 32, 206, 47, 147, 147, 7, 13
ake Michigan Chicago Grand Haven Milwankee ake Erie Buffalo Cleveland Brie Sandusky Suspension Bridge Toledo ake Ontario Cape Vincent Owwego	428, 116 387, 272 157, 110 87, 887 142, 275 813, 572 166, 417 382, 766 7, 016 136, 228 52, 155 68, 990 51, 933 6, 546 28, 621 16, 766	5, 887 8, 091 5, 329 1, 388 1, 424 29, 219 3, 751 18, 401 4, 272 250 2, 545 1, 907	33, 949 27, 701 23, 000 90 4, 611 91, 973 20, 486 57, 326 9, 838 4, 323 8, 125 968 6, 040 1, 117	4, 261 5, 660 1, 721 1, 619 2, 320 15, 408 425 10, 981 2, 490 1, 512 40 15 25		29, 40, 13, 32, 208, 47, 147, 3, 1, 7,
ake Michigan Chicago Grand Haven Milwaukee ake Erie Buffalo. Cleveland Erie Sandusky Suapension Bridge Toledo ake (Intario Cape Vincent (Iswego Rochester	428, 116 387, 272 157, 110 87, 887 142, 275 813, 572 166, 417 382, 766 7, 016 136, 228 52, 155 68, 990 51, 933 6, 546 28, 621 16, 766 8, 190	5, 887 8, 091 5, 329 1, 388 1, 424 29, 219 3, 751 18, 401 4, 272 250 2, 545 1, 907 355 1, 288 264	33, 949 27, 701 23, 000 90 4, 611 91, 973 20, 486 57, 326 9, 838 4, 323 8, 125 968 6, 040 1, 117 700	4, 261 5, 660 1, 721 1, 619 2, 320 15, 408 425 10, 981 2, 490 1, 512 40 15 25		29, 86, 40, 13, 32, 206, 47, 147,

EARNINGS AND EXPENSE ACCOUNTS—Continued.

TABLE 20.—EXPENSE ACCOUNT IN DETAIL, ETC.—Continued.

UNRIGGED.

LAKES AND RIVER.	Total expenses.	Port charges.	Wages.	Provisions.	Current repairs.	Fuel.
Total	\$68, 220	\$17, 699	\$17, 865	\$4,040	\$643	
.ake Superior: Marquette	13, 827	3, 132	2, 773	860	302	
ake Erie: Buffalo	7, 216		7, 166		50	
t. Lawrence river: Ogdensburg	47, 177	14, 567	7, 926	3, 180	291	<u> </u>
LAKES AND RIVER.	Other running expenses.	Commission.	Insurance.	Taxes.	Office expenses.	Other shore expenses.
Total	\$24, 195	\$ 510	\$2,218	\$50	·	\$1,00
ake Superior: Marquette	6, 680	30		50		=
ake Erie: Buffalo		:				
t. Lawrence river: Ogdensburg	17, 515	480	2, 218			. 1,00

SUPPLEMENTARY—ESTIMATED ITEMIZED EXPENSE ACCOUNT OF 896 CRAFT NOT REPORTING THESE DETAILS, THE ESTIMATE BEING BASED ON THE FIGURES ACTUALLY REPORTED FOR 1,841 CRAFT.

CLASS OF VESSELS.	Number of vessels.	Total ex	kpenses.	Port c	harges.	Wage	38.	Provisi	ons.	Current repairs.	Fuel.
Total	896	\$8,4	148, 811	*	755, 952	\$2, 42	, 389	\$562	. 378	\$ 584, 233	\$1, 096, 536
Steamers. Sailing vessels. Unrigged	395 204 297	1,4	07, 627 197, 593 343, 591	1	151, 881 124, 589 179, 482	38:), 915 1, 046 9, 428	87	, 035 , 897 , 446	426, 869 139, 946 17, 418	1, 096, 536
CLASS OF VESSELS.	Other run . expense		Commis	sion.	Insur	ance.	1	axes.	Offic	e expenses.	Other shore expenses.
Total	\$2,043	3, 005	\$6	6, 800	*	364, 982		\$ 70, 511	i -	\$86, 623	\$396, 402
Steamers. Sailing vessels.	552	5, 168 2, 371	1	8, 718 4, 267	:	250, 359 54, 534		40, 065 29, 090		86, 623	255, 4L8 113, 853

EARNINGS AND EXPENSE ACCOUNTS—Continued.

TABLE 21.—EMPLOYES AND WAGES BY PORTS—MONTHLY WAGES PAID TO ALL EMPLOYES OF 1,841 REPORTING (a) CRAFT, WITH SEPARATE ENTRIES FOR STEAMERS, SAILING VESSELS, AND UNRIGGED, GIVEN IN DETAIL.

STEAMERS.

	CA	PTAINS.	FIRS	T MATES.	SECO:	ID MATES.	c	LERKS.		first Hneers.		ECOND HNEERS.	WH	eelmen.	LO	OKOUTS.
PORTS.	No.	Monthly wages.	No.	Monthly wages.	No.	Monthly wages.	No.	Monthly wages.	No.	Monthly wages.	No.	Monthly wages.	No.	Monthly wages.	No.	Monthly Wages.
Total	1, 069	\$116, 678	577	\$41,289	339	\$19,663	١,			\$93, 193	597	\$ 37, 159	1,040	\$37,452	565	\$19, 07
Superior	90	9, 156	33	2, 178	12	722	6	1	94	7, 976	39	2, 350	51	1, 800	18	57
Duluth	20 70	1, 620 7, 536	1 32	50 2, 128	12	722	6	310	24 70	1, 810 6, 166	1 38	40 2, 310	1 50	50 1,750	18	57
Huron	250	27, 607	180	12, 468	82	. 4,591	. 40	2, 644	249	22, 402	178	11, 277	323	10, 841	155	5, 21
Detroit Port Huron	113 137	13, 551 14, 056	91 89	6, 409 6, 059	49 33	2, 861 1, 730	30 10	2, 049 595	113 136	10, 947 11, 455	88 90	5, 749 5, 528	163 160	5, 619 5, 222	93 62	3, <u>22</u> 1, 98
Michigan	323	33, 067	141	9, 575	68	3, 860	42	2, 890	327	27, 010	156	9, 193	239	8, 842	85	2, 83
Chicago Grand Haven Milwaukee	112 115 96	13, 184 9, 430 10, 453	39 42 60	2, 858 2, 570 4, 147	21 14 33	1, 195 720 1, 954	10 23 9	990 1, 210 690	114 116 97	10, 353 8, 395 8, 262	51 43 62	3, 010 2, 253 3, 930	69 75 95	2, 741 2, 555 3, 546	27 15 43	, 89 48 1,44
Erie	338	41, 347	205	15, 988	170	10,086	. 19	1,411	330	31, 023	204	13, 248	394	14, 670	291	9, 96
BuffaloClevelandErieSanduskySuspension BridgeToledo	126 119 24 38 6 25	14, 203 17, 138 3, 238 3, 659 738 2, 371	21	5, 581 6, 296 1, 468 1, 465 300 878	58 73 17 13 3 6	3, 539 4, 242 1, 052 736 160 357	5 4 7 2 1	300 495 80	120 119 24 36 6 25	11, 060 11, 889 2, 415 3, 086 528 2, 045	66 83 17 22 4 12	3, 952 5, 661 1, 195 1, 440 265 735	129 164 35 40 8 18	4, 690 6, 499 1, 215 1, 392 240 634	114 101 34 19 8 15	3, 66 3, 87 1, 03 57 24
Ontario	46	3, 471	8	390	1	35	. 8	406	46	3, 182	. 11	526	18	775	6	18
Cape Vincent	19 14 13	1, 505 976 990	3	210	1	35	1 3	165 45 196	20 13 13	1, 436 886 860	4 3 4	190 136 200	6 2 10	220 125 430	2 1 3	. 3
St. Lawrence river	22	2, 030	10	. 690	6	360	2	90	21	1, 600	9	! 5 6 5	15	524	10	31
*Alexandria Bay		240 60					1	60	3	240 60			. 1	35		
Ogdensburg		1,730	10	690	6	360	, 1	30	17	1,300	9	56 5	14	489	10	31

a 1,072 steamers; 758 sailing vessels; 11 unrigged. See supplementary table, page 110.

TRANSPORTATION ON THE GREAT LAKES.

EARNINGS AND EXPENSE ACCOUNTS—Continued.

TABLE 21.-EMPLOYES AND WAGES BY PORTS, ETC.-Continued

STEAMERS—Continued.

	WA'	ICHMEN.	c	OOKS.		SISTANT OOKS.	81	AMEN.	DECI	K HANDS.	Fil	REMEN.	STI	EWARDS.	w.	AITERS.
PORTS.	No.	Monthly wages.	No.	Monthly wages.	No.	Monthly wages.	No.	Monthly wages.	No.	Monthly wages.	No.	Monthly wages.	No.	Monthly wages.	No.	Monthly wages.
Total	503	\$16,583	720	\$ 37, 106	306	\$6, 419	52	\$1,870		\$ 53, 992	1, 463	\$53, 411	75	\$4, 457	215	\$4, 39
Superior	25	783.	55	2, 552	17	385			133	3, 600	102	3, 702	2	100	7	120
Duluth	25	783	11 44	340 2, 212	17	385			19 114	835 2, 765	8 94	295 3, 407	2	100	7	120
Huron	160	5. 277	204	9, 902	82	1, 482	15	450	569	13, 263	381	13, 392	17	1,037	83	1, 794
DetroitPort Huron	90 70	3, 085 2, 192	107 97	5, 215 4, 687	46 36	861 621	15	450	349 220	8, 573 4, 690	206 175	7, 606 5, 786	14	842 195	75 8	1, 63- 160
Michigan	113	3, 797	217	12, 429	63	1, 351	19	640	574	16, 897	352	13, 529	16	975	44	81:
Chicago Grand Haven Milwaukee	39 25 49	1, 280 751 1, 766	82 55 80	5, 841 2, 621 3, 967	24 15 24	615 300 436	10 2 7	315 30 295	216 130 228	6, 906 3, 452 6, 539	133 119 100	5, 608 4, 064 3, 857	8 6 2	530 310 135	26 15 3	514 24! 5-
Erie	191	6, 343	217	11, 228	136	3, 019	13	635	904	17, 806	588	21, 479	37	2, 205	74	1, 56
BuffaloClevelandErle	68 65 33	2, 082 2, 475 990	56 90 17	3, 057 4, 846 1, 663	33 67 17	808 1,321 585	6	360 200	325 301 117	5, 584 6, 736 1, 870	247 197 71	8, 724 7, 765 2, 505	26 5	1,660	54 13	1, 173
Sandusky	14		33 4 17	1, 352 240 670	11 3 5	165 60 80	3		96 12 53	2, 256 340 1, 020	37 10 26	1, 331 323 831	6		1	11
					2		3	13		ĺ				i	6	
Ontario	7		14	467		42			62	1,740	22	693	3		7	10-
Cape Vincent Oswego Rochester	1	108 40 30	. 8 . 4 . 2		2	42		l	30 12 20	790 370 580	. 4	393 130 170	3	140	6	20
St. Lawrence river	. 7	205	13	528	6	140	5	145	36	686	18	616	ļ	ļi	 	
Alexandria Bay		25							3	90 15	1	40				
Ogdensburg		180	13	528	6	140	5	145	32	581	17	576				

EARNINGS AND EXPENSE ACCOUNTS-Continued.

TABLE 21.—EMPLOYES AND WAGES BY PORTS, ETC.—Continued.

STEAMERS—Continued.

	1	BOYS.	СНАМ	BERMAIDS.	PC	eters.	MU	SICIANS.	Number	Number	Total	Average
PORTS.	No.	Monthly wages.	No.	Monthly wages.	No.	Monthly wages.	No.	Monthly wages.	persons making ordinary crew.	persons given employment during year.	wages paid per month.	rate of wage per month
Total	30	\$ 549	49	\$1,097	89	\$2, 245	. 8	\$520	11, 159	19, 444	\$554, 907	\$49.7
Superior			1	18	6	150			691	1,078	36, 479	52.7
Duluth			1	18	6	150			85 606	98 980	5, 040 31, 439	59. 2 51. 8
Huron	7	129	20	420	17	417	ļ	· · · · · · · · · · · · · · · · · · ·	3, 012	4, 650	144, 608	48.0
DetroitPort Huron	5 2	99 30	19 1	400 20	16				1, 682 1, 330	2, 617 2, 033	79, 576 65, 032	47.3 48.9
Michigan	14	215	15	361	5	121	······	`	2. 813	5, 612	148, 397	52.7
Chicago	1 11 2	15 170 30	8 2 5	188 50 123	1 4	20 101			991 827 995	2, 101 1, 603 1, 908	57, 054 39, 713 51, 630	57. 5 48. 0 51. 8
Erie	8	195	10	240	61	1, 557	8	520	4, 198	7, 372	204, 532	48.7
Buffalo	1	20	5 4 1	120 100	36 20 2	917 500 65 75		520	1, 544 1, 466 474 391 70 253	1, 828 3, 728 524 699 137 456	71, 451 79, 102 20, 326 18, 623 3, 514 11, 516	46. 2 53. 9 42. 8 47. 6 50. 3 45. 5
Ontario	1	10	3	58	 .				265	321	12, 402	46.8
Cape Vincent			2	38 20					131 55 79	. 163 . 72 86	5, 728 2, 848 3, 826	43.7 51.7 48.4
St. Lawrence river							ļ		180	411	8, 489	47.1
Alexandria Bay Clayton Ogdensburg		. 1							13 3 164	18 3 395	730 135 7, 624	54. 1 45. 6 46. 4

EARNINGS AND EXPENSE ACCOUNTS—Continued.

TABLE 21.—EMPLOYES AND WAGES BY PORTS, ETC.—Continued.

SAILING VESSELS.

	CA	PTAINS.		FIRST (ATES.		ECOND LATES.	WA	TCHMEN.	0	ooks.	SE.	AMEN.	1	BOYS.	Number of per-	Number of persons given em-	Total wages	Averag
PORTS	No.	Month- ly wages.	No.	Month- ly wages.	No.	Month- ly wages.	No.	Month- ly wages.	No.	Month- ly wages.	No.	Month- ly wages.	No.	Month- ly wages.	making ordinary crew.	ployment during	paid per month.	wages per month.
Total	7 57	\$58, 426	632	\$32, 952	132	\$6, 641	2	\$ 50	660	\$23, 547	2, 354	\$90,369	4	\$73	4, 541	8, 700	\$212, 6 58	\$46.
Superior: Marquette	25	1, 917	15	900	7	380	 		18	720	60	2, 752	ļ'		134	363	6, 669	49.
Huron	215	15, 116	177	8, 048	14	645	ļ	ļ	188	5, 729	672	21, 748	 	ļ 	1, 266	2, 203	51, 286	. 40. 5
Detroit Port Huron	70 145	5, 187 9, 929	56 121	2, 832 5, 216	7 7	313 332			62 126	1, 894 3, 835	232 440	8, 185 13, 56 3	ļ		427 839	629 1, 574	18, 411 32, 875	43. 1 39. 1
dichigan	309	23, 427	257	13, 606	36	1, 939	2	50	269	10, 774	817	35, 437]' 	 •••••••	1,690	2, 862	85, 233	50.
Chicago	86	8, 828 5, 608 8, 991	90 62 105	3,070	22 5 9	1, 208 244 487	1	30 20	95 70 104	4, 296 2, 487 3, 991	365 172 280	16, 955 7, 054 11, 428			672 396 622	1, 269 684 909	36, 540 18, 483 30, 210	54. 46. 48.
Srje	165	15, 235	154	8, 877	70	3, 395	 	 	154	5, 471	671	 25, 825	4	73	1, 218	2, 912	58, 876	48.
Buffalo	28 76 1 31 8 21	2, 458 7, 629 100 2, 600 555 1, 893	' 1	280	1				27 73 1 25 7 21	961 2, 732 30 819 210 719	118 320 4 109 36 84	4, 592 12, 609 120 4, 454 1, 070 2, 980	4	73	205 597 8 201 58 149	398 1,584 8 571 90 261	9, 653 29, 921 361 9, 954 2, 115 6, 872	47. (50. 45. 49. (36. 46.)
Ontario	40	2,546	28	1, 471	5	282	l		28	811	110	4, 337	ļ	ļ 	211	294	9, 447	44.
Cape Vincent Oswego Rochester	20 12 8	943 993 610	10 11 7	415 662 394	4	237 45	 		10 11 7	270 343 198	40 43 27	1, 341 1, 836 1, 160	i		80 81 50	93 133 68	2, 969 4, 071 2, 407	37. 50. 48.
t. Lawrence river: Ogdensburg	3	185	1	50] 		 	·	 3	42	15	270	_[]		22	66	. 547	24.

EARNINGS AND EXPENSE ACCOUNTS—Continued.

TABLE 21.-EMPLOYES AND WAGES BY PORTS, ETC.-Continued

UNRIGGED.

	CA	PTAINS.	FIRS	ST MATES.		COOKS.	8	EAMEN.	Number of persons	Number of persons	Total	Average
PORTS.	No.	Monthly wages.	No.	Monthly wages.	No.	Monthly wages.	No.	Monthly wages.	making ordinary crew.	given em- ployment during year.	wages paid per month.	rate of wages per month.
Total	11	\$69 5	5	\$230	7	\$141	38	\$1.016	61	151	\$2,082	\$34. 13
Superior: Marquette	1	100	1	60	1	50	4	156	7	28	366	52. 29
Erie: Buffalo	3	230	1	60	ļ 		10	385	14	14	675	48.21
St. Lawrence river: Ogdensburg	7	365	3	110	6	91	24	475	40	109	1, 041	26.03

SUPPLEMENTARY—ESTIMATED NUMBER OF EMPLOYES AND MONTHLY WAGES PAID ON 896 CRAFT NOT REPORTING THESE DETAILS, THE ESTIMATE BEING BASED ON THE FIGURES ACTUALLY REPORTED FOR 1,841 CRAFT.

at the on Marketta	Num- ber of	1	PTAINS.	FIRS	T MATE	s. se	COND MA	TES.	(CLERKS.	E	FIR NGIN	EERS.		ECOND BINEERS.	WE	ieelm e n.	I.c	OOKOUTS.
CLASS OF VESSELS.	vessels		Monthly wages.	No.	Month wages			thly ges.	No.	Monthl wages			lonthly wages.	No.	Monthly wages.	No.	Monthly wages.	No.	Monthly wages.
Total	896	895	\$77, 501	512	\$30,0	35 1	80 \$9	,011	43	\$2,84	9 39	3 \$	34, 325	220	\$13,781	385	\$13,864	213	\$7, 19
Steamers Sailing vessels Unrigged	395 204 297	394 204 297	43, 005 15, 731 18, 765	213 169 130	15, 2 8, 8 5, 9	13 🖟 🕄	25 7 35 1	, 250 , 761	43	2, 84	39	3	34, 325	220	13, 781	385	13, 864	213	7, 19
	WAT	CHMEN	. С	ooks.		ASSIS	TANT K8.		BAMI	EN.	DECK	HANI	D8.	FIRE	MEN.	STE	WARDS.	W	aiters.
CLASS OF VESSELS.	No.	Month wage		Mont wag			fonthly wages.	No.		onthly ages.	No.	Mont wag			fonthly wages.	No.	Monthly wages.	No.	Monthly wages.
Total	152	\$5 , 0	04 639	\$24,	128	118	\$2, 476	1, 667		52, 088	850	\$20 ,	, 145	547	\$19,971	28	\$1,674	79	\$1.61
Steamers Sailing vessels Unrigged	151 1	4, 9	79 271 25 177 191	6,	967 315 846	118	2, 476	19 630 1, 018	. :	683 24, 186 27, 219	850	20,	145	547	19, 971	28	1, 674	79	1, 61.
				1.1		В	OYS.	СН	AMBI	ERMAIDS.	PC	ORTE	RS.		peron: n	mber o		-	Average
CLAS	S OF VE	esels.				No.	Monthl wages			Monthly wages.	No.		onthly ages.	pere mak ordin cre	ing giv	en en oymen uriug year.	1 TOTA	aid:	rate of wages per month.
Total						12	\$21	9	19	\$421	33	!	\$832		3, 965	13, 58	6 \$317,	138	\$45.5
SteamersSailing vesselsUnrigged	•••••					11	20		19	421	33		832	:	i, 112 i, 217 i, 636	7, 16 2, 33 4, 09	0 56,	479 849 810	49.7 46.7 34.1

EARNINGS AND EXPENSE ACCOUNTS—Continued.

TABLE 22.—EMPLOYÉS AND WAGES BY LAKE TOTALS—MONTHLY WAGES PAID TO ALL EMPLOYÉS OF 1,841 REPORTING (a) CRAFT, WITH SEPARATE ENTRIES FOR STEAMERS, SAILING VESSELS, AND UNRIGGED, BUT GIVEN ONLY IN TOTALS FOR EACH LAKE AND 6T. LAWRENCE RIVER.

ALL CRAFT.

	. 21	· -														
	C.A.	PTAINS.	FIRS	T MATES.	SECON	ID MATES.	ı Cı	LERKS.		EERS.		ND ENGI-	WH	EELMEN.	LO	окоств.
LAKES AND RIVER.	No.	Monthly wages.	No.	Monthly wages.	No.	Monthly wages.	No.	Monthly wages.	No.	Monthly wages.	No.	Monthly wages.	No.	Monthly wages.	No.	Monthly wages.
Total	1, 837	\$175, 799	1, 214	\$74, 471	471	\$26, 304	117	\$7,751	1, 067	\$93, 193	597	\$37, 159	1, 040	\$37,452	565	\$19,07
Superior Huron Michigan Erie Ontario St. Lawnence river	465 632 506 86	11, 173 42, 723 56, 494 56, 812 6, 017 2, 580	49 357 398 300 36 14	3, 138 20, 516 23, 181 24, 925 1, 861 850	19 96 104 240 6 6	1, 102 5, 236 5, 808 13, 481 317 360	6 40 42 19 8 2	310 2, 644 2, 890 1, 411 406 90	94 249 327 330 46 21	7, 976 22, 402 27, 010 31, 023 3, 182 1, 600	39 178 156 204 11 9	2, 350 11, 277 9, 193 13, 248 526 565	51 323 239 394 18 15	1, 800 10, 841 8, 842 14, 670 775 524	18 155 85 291 6 10	57 5, 21 2, 82 9, 96 18
	WA	TCHMEN.		cooks.	ASSIST	ANT COOKS	81	BAMEN.	DEC	K HANDS.	FI	REMEN.	STI	EWARDS.	w	AITERS.
LAKES AND RIVER.	No.	Monthly wages.	No.	Monthly wages.	No.	Monthly wages.		Monthly wages.	No.	Monthly wages.	No.	Monthly wages.	No.	Monthly wages.	No.	Monthly wages.
Total	505	* 16, 633	1. 387	\$60,794	306	\$6, 419	2, 444	\$9 3, 2 55	2, 278	\$53, 992	1, 463	\$53, 411	75	\$4, 457	215	\$4,39
Superior Huron Michigan Erie Ontario St. Lawrence river	115 191 7	783 5, 277 3, 847 6, 343 178 205	74 392 486 371 42 22	3, 322 15, 631 23, 203 16, 699 1, 278 661	17 82 63 136 2 6	385 1, 482 1, 351 3, 019 42 140	73 687 836 694 110 44	2, 908 22, 198 36, 077 26, 845 4, 337 890	133 569 574 904 62 36	3, 600 13, 263 16, 897 17, 806 1, 740 686	102 381 352 588 22 18	3, 702 13, 392 13, 529 21, 479 693 616	17 16 37 3	100 1, 037 975 2, 205 140	7 83 44 74 7	12 1, 79 81 1, 56 10
	1	BOYS.	СНАМ	BERMAIDS.	PO	RTERS.	мс	SICIANS.		umber ns making	per	Number sons given		Total		Average rate of
LAKES AND RIVER.	No.	Monthly wages.	No.	Monthly wages.	No.	Monthly wages.	No.	Monthly wages.	, OI	dinary crew.		ployment during year.		vages paid er month.	- [wages er month.
Total	34	\$62 2	49	\$1,097	89	\$2, 245	8	\$520		15, 761		28, 29	5	\$769, 04	7	\$48.7
Superior	7 14 12 1	129 215 268 10	20 15 10 3	18 420 361 240 58	6 17 5 61	150 417 121 1,557	8	520		832 4, 278 4, 503 5, 430 476 242		1, 46 6, 85 8, 47 10, 29 61 58	3 4 8 5	43, 51 195, 89 233, 69 264, 08 21, 84 10, 07	4 0 3 9	52. 3 45. 7 51. 8 48. 6 45. 9

STEAMERS.

	CAI	PTAINS.	FIRS	T MATES.	BECON	D MATES.	r	Lerks.		ST ENGI- EERS.		ND ENGI-	WH	EELMEN.	1.04	okovis.
LAKES AND RIVER.	No.	Monthly wages.	No.	Monthly wages.	No.	Monthly wages.	No.	Monthly wages.	No.	Monthly wages.	No.	Monthly wages.	No.	Monthly wages.	No.	Monthly wages.
Total	1, 069	\$116, 678	577	\$41, 289	339	\$19,663	117	\$ 7, 751	1, 067	\$93, 193	597	\$ 37, 159	1, 040	\$37, 4 52	563	\$19, 07
Superior Huron Michigan Erie Ontario St. Lawrence river	90 250 323 338 46 22	9, 156 27, 607 33, 067 41, 347 3, 471 2, 030	33 180 141 205 8 10	2, 178 12, 468 9, 575 15, 988 390 690	12 82 68 170 1 6	722 4, 591 3, 869 10, 086 35 360	6 40 42 19 8 2	310 2. 644 2, 890 1, 411 406 90	94 249 327 330 46 21	7, 976 22, 402 27, 010 31, 023 3, 182 1, 600	39 178 156 204 11 9	2, 350 11, 277 9, 193 13, 248 526 565	51 323 239 394 18 15	1, 800 10, 841 8, 842 14, 670 775 524	18 155 85 291 6 10	57: 5, 21: 2, 82: 9, 96: 18:
	WAT	CHMEN.	: -		_ 'A8818T	ANT COOKS	, 18	EAMEN.	DEC	K HANDS.	PII	ELL :	I	WARDS.	w	AITERS.
LAKEN AND RIVER.	No.	Monthly wages.	No.	Monthly wages.	No.	Monthly wages.	No.	Monthly wages.	No.	Monthly wages.	No.	Monthly wages.	No.	Monthly wages.	No.	Monthly wages.
Total	5 03	\$ 16, 583	720	\$37, 106	306	\$ 6, 4 19	52	\$1,870	2, 278	\$ 53, 992	1, 463	\$53,411	75	\$4, 457	215	\$4, 390
Superior. Huron. Michigan Erie Ontario St. Lawrence river.	25 160 113 191 7	783 5, 277 3, 797 6, 343 178 205	55 204 217 217 14 13	2, 552 9, 902 12, 420 11, 228 467 528	17 82 63 136 2	385 1, 482 1, 351 3, 019 42 140	15 19 13	450 040 635	133 569 574 904 62 36	3, 600 13, 263 16, 897 17, 806 1, 740 686	102 381 352 588 22 18	3, 702 13, 392 13, 529 21, 479 693 616	2 17 16 37 3	100 1, 037 975 2, 205 140	7 83 44 74 7	120 1, 794 813 1, 564 104

 $[\]alpha$ 1,072 steamers; 758 sailing vessels: 11 unrigged. See supplementary table, page 110.

EARNINGS AND EXPENSE ACCOUNTS—Continued.

TABLE 22.—EMPLOYES AND WAGES BY LAKE TOTALS, ETC.—Continued.

STEAMERS—Continued.

	··	BOYS.	CHAM	BERMAIDS.	PC	RTERS.	MU	BICIANS.	Number	Number persons given	Total	Average
LAKES AND RIVER.	No.	Monthly wages.	No.	Monthly wages.	No.	Monthly wages.	No.	Monthly wages.	persons making ordinary crew.	employment during year.	wages paid per month.	rate of wages per month.
Total	30	\$ 549	49	\$1,097	89	\$2, 245	8	\$ 520	11, 159	19, 444	\$554, 907	\$49.73
Superior	7 14 8 1	129 2:5 195 10	1 20 15 10 3	18 420 361 240 58	6 17 5 61	150 417 121 1,557	8	520	691 3, 012 2, 813 4, 198 265 180	1, 078 4, 650 5, 612 7, 372 321 411	36, 479 144, 608 148, 397 204, 532 12, 402 8, 489	52, 79 48, 01 52, 73 48, 72 46, 80 47, 16

SAILING VESSELS.

	CA	PTAINS.	FIRS	T MATES.	SECO	ND MATES.	_ c	LERKS.		ST ENGI- NEERS.		OND ENGI- NEERS.	WH	EELMEN.	LOG	OKOUTS.
LAKES AND RIVER.	No.	Monthly wages.	No.	Monthly wages.	No.	Monthly wages.	No.	Monthly wages.	No.	Monthly wages.	No.	Monthly wages.	No.	Monthly wages.	No.	Monthly wages.
Total	757	\$58, 426	632	\$ 32, 9 52	132	\$6, 641										
Superior Huron Michigan Erie Ontario St. Lawrence river	25 215 309 165 40 3	1, 917 15, 116 23, 427 15, 235 2, 546 185	257 154 28	900 8. 048 13. 606 8, 877 1, 471 50	7 14 36 70 5											
	W.A.	TCHMEN.	"	ooks.	ASSIST	ANT COOKS	8	EAMEN.	DEC	K HANDS.	Fi	REMEN.	STI	WARDS.	W.	AITEKS.
LAKES AND RIVER.	No.	Monthly wages.	No.	Monthly wages.	No.	Monthly wages.	No.	Monthly wages.	No.	Monthly wages.	No.	Monthly wages.	No.	Monthly wages.	No.	Monthly wages
Total	2	\$50	669	\$23, 547			2, 354	\$90, 369				·	 			
uperior Turon fichigan Trie Intario it. Lawrence river	2	50	. 18 188 269 . 154 . 28	720 5, 729 10, 774 5, 471 811 42	 		69 672 817 671 110	2, 752 21, 748 35, 437 25, 825 4, 337 270								
	1	oys.	СНАМЕ	BERMAIDS.	РО	RTERS.	мс	SICIANS.		Yumber		Number	!	(F-4-1)	T	Average
LAKES AND RIVER.	No.	Monthly wages.	No.	Monthly wages.	No.	Monthly wages.	No.	Monthly wages.		ons making rdinary crew.		sons given ployment during year.	▼	Total vages paid er month.	1	rate of wages or month.
Total	4	\$73	l						!- 	4, 541		8, 700	,	\$212, 05	8	\$46.
uperior	4	73								134 1, 266 1, 69 0 1, 218 211		363 2, 203 2, 865 2, 913 294	2	6, 66 51, 28 85, 23 58, 87 9, 44	6 3 6	49. 40. 50. 48. 44.

EARNINGS AND EXPENSE ACCOUNTS—Continued.

TABLE 22.—EMPLOYÉS AND WAGES BY LAKE TOTALS, ETC.—Continued. UNRIGGED.

•	CA	PTAINS.	FIRS	Т МАТЕВ.	SECO	ND MATES.		CLERKS.		ST ENGI- EERS.		NEERS.	WH	BELMEN.	LOC	OKOUTS.
LAKES AND RIVER.	No.	Monthly wages.	No.	Monthly wages.	No.	Monthly wages.	No.	Monthly wages.	No.	Monthly wages.	No.	Monthly wages.	No.	Monthly wages.	No.	Monthly wages.
Total	. 11	\$695	5	\$230			!								<u> </u>	
Superior Erle St. Lawrence river	1 3 7	100 230 365	1 1 3	60 60 110									 			
	WA	TCHMEN.	C	ooks.	ASSIST	ANT COOKS	81	BAMEN.	DEC	K HANDS.	FI	REMEN.	STI	EWARDS.	w.	AITERS.
LAKES AND RIVER.	No.	Monthly wages.	No.	Monthly wages.	No.	Monthly wages.	No.	Monthly wages.	No.	Monthly wages.	No.	Monthly wages.	No.	Monthly wages.	No.	Monthly wages.
Total		j	7	\$141			38	\$1,016		1						
Superior Erie St. Lawrence river			16	50 91			10 24	156 385 475								
	1	ovs.	СНАМЕ	BERMAIDS.	PC	RTERS.	ж	BICIANS.		umber		Number sons given		Total		Average
LAKES AND RIVER.	No.	Monthly wages.	No.	Monthly wages.	No.	Monthly wages.	No.	Monthly wages.	01	ns making dinary crew.		ployment during year.	ven Total ent wages paid		rate of wages er month.	
Total								!		61	<u> </u>	15	1	\$2,08	2	\$34.1
Superior Erie St. Lawrence river										7 14 40		2: 1- 10:	4 :	36 67 1, 04	5	52. 2 48. 2 26. 0

EARNINGS AND EXPENSE ACCOUNTS—Continued.

TABLE 23.—FUEL ACCOUNT—AMOUNTS AND VALUE OF THE COAL AND WOOD USED AS FUEL ON 1,072 REPORTING STEAMERS, WITH SEPARATE ENTRIES UNDER THE HEADS OF CLASSIFIED OCCUPATIONS. (a)

!		Cords			BER, PASSE HT. AND I	ENGER AND FREIGHT.		FERRY.		,	rowboa1	rs.	Misc	ELLANE	ous.
LAKES AND RIVER.	Tons of coal.	of wood.	Cost of fuel.	Coal in tons.	Wood in cords.	Value.	Coal in tons.	Wood in cords.	Value.	Coal in tons.	Wood in cords.	Value.	Coal in tous.	Wood in cords.	Value
Total	1, 118. 677	62, 319	\$2,975,915	922, 826	31, 227	\$2,392.310	4, 828	2,096	\$ 15. 595	160, 0 07	26, 036	\$475 , 002	31, 016	2, 960	\$9 3, 006
Lake Superior	67, 994	1. 100	200, 405	48, 001		138, 851	1, 127		3, 546	17, 066	1, 100	54, 020	1, 800		3, 988
Duluth	4, 665 63, 329	800 300	15, 061 185, 344	150 47, 851		488 138, 363	1, 127		3, 546	4, 515 12, 551	800 300	14, 573 39, 447	1, 800		. 3, 981
Lake Huron	324, 200		745, 130	252, 666	•	590, 833	439		1, 325	54, 509	 	107, 731	16, 595	·	. 45, 241
DetroitPort Huron	191, 118 133, 091		22722		·	346, 014 244, 819	439		1, 325	23, 348 31, 161		35, 827 71, 904			
Lake Michigan	205, 591	60,843	625, 071	150, 347	30, 851	399, 437	1, 920	2,096	6, 790	44,678	24, 936	189, 726	8, 646	2,960	29, 118
Chicago	68, 898 58, 877 77, 816	8, 678 29, 048 23, 117	227, 702 148, 405 248, 964	35, 025 47, 212 68, 110	7, 067 16, 761 7, 023	110, 012 95, 742 193, 683	640 1, 000 280	2,096	228 5, 722 840	27, 336 10, 563 6, 779	1, 611 7, 231 16, 094	98, 812 44, 176 46, 738	5, 897 102 2, 647	2, 960	18. 650 2. 766 7. 700
Lake Erie	497, 268	ļ	1, 333, 833	455, 216		1, 213, 339	1, 039		2, 692	37, 713		105, 571	3,300	ļ	12,231
Buffalo	44, 138 37, 217 8, 300		145, 258 90, 652 23, 612	167, 061 186, 474 43, 838 35, 237 7, 551 15, 055		85, 974 20, 732	889 150		2, 392	16, 404 15, 577 1, 780 749 3, 203		46, 824 42, 459 4, 178 2, 880 9, 230	800 1, 250 300 50		3, 656 5, 175 1, 000 200
Lake Ontario	6, 281		24. 818	4, 117		17, 051				1,769	. .	6, 197	395	 	.: 1, 57 0
Cape Vincent	1,644		11, 724 6, 083 7, 011	2, 395 240 1, 482		10, 124 1, 016 5, 911	 '			150 1, 259 360		500 4,597 1,100	250 145		. 1, 100 . 470
St. Lawrence river	17, 334	376	46, 658	12, 479	376	32,799	303	! !	1, 242	4, 272	 	11, 757	280		. 860
Alexandria Bay Clayton Ogdensburg	718 :4 16, C02	376	2, 242 75 44, 341	638 14 11, 827	376	1, 982 75 30, 742	303	:	1, 242				80		. 260

a Not including estimated amount and value of the coal and wood used as fuel on 395 steamers not reporting these items. See supplementary table below.

SUPPLEMENTARY—ESTIMATED AMOUNT AND VALUE OF THE COAL AND WOOD USED AS FUEL ON 395 STEAMERS NOT REPORTING THESE ITEMS, THE ESTIMATE BEING BASED ON THE FIGURES ACTUALLY REPORTED FOR 1.6.2 STEAMERS.

	GREAT LAKES AND	ST. LAWRENCE H	RIVER.	Number of vessels	Tens of coal.	Cords of wood.	Cost of fuel.
							
Total		· · · · · · · · · · · · · · · · · · ·		 ; 395	412, 320	22, 969	\$1,096,536
					1		

COMPARATIVE STATISTICS.

TABLE 24.—STEAMERS BY CLASSES IN 1880 AND 1889—NUMBER, TONNAGE, AND VALUE OF STEAMERS IN 1880 AND 1889, AS REPORTED BY THE TENTH AND ELEVENTH CENSUSES, AND GIVEN BY CLASSES OF OCCUPATION.

Passeuger and freight 1889 1, 467 595, 813 40, 868, 82 Passeuger and freight 1880 343 195, 625 11, 253, 80 1889 798 560, 144 37, 010, 32 Ferry 1880 28 3, 624 340, 50	CLASSES.	 Year.	Number.	Tonnage.	Value.
Ferry 1889 798 560, 144 37, 010, 32 Ferry 1880 28 3, 624 340, 50	Total				\$13, 918, 925 40, 868, 824
	Passenger and freight				11, 253, 800 37, 010, 324
	•	1880 1889	28 40	3, 624 4, 702	340, 500 498, 000
1889 520 26. 200 2, 837, 80					1, 978, 800 2, 837, 800
	Miscellaneous				345, 825 522, 700

TABLE 25.—EXPENSE ACCOUNTS IN 1880 AND 1889—GROSS EARNINGS OF STEAMERS OPERATING IN 1880 AND 1889, AS REPORTED BY THE TENTH AND ELEVENTH CENSUSES, TOGETHER WITH THE AMOUNTS PAID OUT IN WAGES DURING THOSE YEARS.

		;;;; ;; ; ; ; ;	
GREAT LAKES AND ST. LAWRENCE RIVER.	Year.	Gross earnings.	Paid in wages.
- · · · · · · · · · · · · · · · · · · ·			·
Total	1880 1889	\$12, 136, 228 24, 949, 267	\$3, 293, 964 5, 795, 895
			l .

TABLE 26.—CREWS AND WAGES IN 1880 AND 1889—NUMBER OF MEN CONSTITUTING THE ORDINARY CREWS EMPLOYED ON ALL OPERATING STEAMERS IN 1880 AND 1889, AS REPORTED BY THE TENTH AND ELEVENTH CENSUSES, TOGETHER WITH WAGES PAID, AVERAGES OF ANNUAL PAY, AND INCREASE PER MAN.

GREAT LAKES AND ST. LAWRENCE RIVER.	Year.	Total number men making ordinary crews.	Total wages paid.	Average annual wages per man.	Average annual in- crease in wages per man.
Total	1880 1889	9, 143 15, 271	\$3. 293. 964 5, 796, 895	\$360. 27 379. 60	\$19.33

TABLE 27.—TRAFFIC IN 1880 AND 1889—FREIGHT MOVED AND PASSENGERS CARRIED BY STEAMERS OPERATING ON THE GREAT LAKES AND ST. LAWRENCE RIVER IN 1880 AND 1889, AS REPORTED BY THE TENTH AND ELEVENTH CENSUSES.

· · · · · · · · · · · · · · · · · · ·			i I	PASSENGERS.	
GREAT LAKES AND ST. LAWRENCE RIVER.	Year.	Freight in tons.	Total.	Regular and excursion.	Ferry.
Total	1880 1889	4, 368, 171 20, 143, 483	1, 356, 010 2, 235, 993	926, 250 1, 612, 519	429, 767 623, 474

COMPARATIVE STATISTICS—Continued.

TABLE 28.—FLEETS FOR THE 10 YEARS, 1880-1889—NUMBER AND TONNAGE OF ALL STEAMERS, SAILING VESSELS. AND BARGES REGISTERED IN THE CUSTOMS DISTRICTS OF THE GREAT LAKES AND ST. LAWRENCE RIVER.

			880			•		
		OTAL.		AMERA.	:	VESSELS.	BAI	RGES.
CUSTOMS DISTRICTS.	Number.	Tounage.	Number.	Tonnage.	Number.	Tonnage.	Number.	Tonnage.
Total	2, 487	552, 341, 59	912	209, 465, 06	1,415	302. 264. 70	160	40, 611, 83
Oswegatchie, New York	24 54	2, 366, 34 5, 280, 77	12 19	765. 10 647. 24	5 35	357. 60 4, 633. 53	7	1, 243.64
Onwego, New York Genesee, New York Ningara, New York	22	17, 064, 80 3, 116, 82 3, 458, 04	22 12 4	956. 57 1, 977. 15 1, 785. 71	66 10 8	16, 108, 23 1, 139, 67 1, 672, 33		• • • • • • • • • • • • • • • • • • • •
Buffalo Creek, New York Dunkirk, New York	4	101, 256, 76 643, 92	115 2	57, 958. 44 36. 81	77	36, 876, 68 607, 11	27	6, 421. 6
Erie, Pennsylvania Uuyahoga, Ohio Sandusky, Ohio	175	23, 464, 14 64, 286, 58 14, 164, 74	23 55 28	18, 353, 07 21, 313, 27 4, 743, 25	12 119 53	5, 111, 07 42, 421, 97 9, 008, 15	1 2	551. 3- 413. 3-
Miami, Ohio. Detroit, Michigan Huron, Michigan Superior, Michigan	53 313 303 67	10, 505, 78 70, 814, 88 51, 613, 36 5, 462, 03	23 113 104 47	3, 416, 75 34, 738, 37 18, 362, 99 2, 180, 30	24 166 130 20	4, 845, 20 29, 912, 52 12, 875, 37 3, 281, 73	6 34 69	2, 243, 85 6, 163, 90 20, 375, 00
Michigan, Michigan Chicago, Illinois Milwankee, Wisconsin Duluth, Minnesota	296 384 348 7	34, 305, 51 76, 478, 02 67, 854, 92 204, 18	129 109 89 6	15, 144, 51 9, 949, 75 16, 981, 23 154, 55	154 275 258 1	16, 035, 53 66, 528, 27 50, 800, 11 49, 63	13	3, 125. 47 73. 56
	! '	1	.881		<u>u :</u>			
Total	2, 494	601, 291, 10	970	257, 250, 65	1,368	303, 271. 86	156	40, 768, 56
Oawegatchie, New York Cape Vincent, New York Dawego, New York Genesse, New York	39 76 22	2, 799, 91 5, 035, 42 14, 266, 37 3, 692, 43	12 13 25 14	823. 73 706. 90 1, 035. 66 2, 299. 68	7 26 51 8	620. 27 4, 328. 52 13, 230. 71 1, 392. 75	8	1, 355, 91
Niagara, New York	215	3, 323. 63 100, 756. 95	125	1, 510. 96 63, 410. 02	65	1, 812, 67 30, 909, 86	25	6, 437. 0
Dunkirk, New York Erie, Pennsylvania Zuyahoga, Ohio Sandusky, Ohio	2 39 181 80	47. 13 28, 326, 50 75, 548, 27 15, 546, 45	27 65 28	22. 97 23, 624. 27 33, 019. 16 5, 883. 70	1 12 112 50	24, 16 4, 702, 23 40, 961, 71 9, 301, 15	4 2	1, 567. 4 261. 0
Miami, Ohio Detroit, Michigan Litton, Michigan Superior, Michigan	303	15, 337, 65 77, 699, 11 63, 031, 34 9, 136, 86	26 121 118 50	7, 329, 58 39, 608, 63 24, 396, 16 3, 632, 01	18 159 144 29	6, 104, 61 33, 574, 14 17, 207, 42 5, 504, 85	5 23 75	1, 903. 4 4, 516. 3 21, 427. 7
Michigan, Michigan Thicago, Illiuois Milwaukee, Wisconsin Duluth, Minnesota	305 367 353 9	34, 978, 84 75, 595, 47 75, 919, 65 249, 12	138 107 89 7	15, 429, 97 11, 916, 42 22, 430, 43 170, 40	154 260 263 2	16, 423, 40 63, 679, 05 53, 415, 64 78, 72	13	3, 125. 4 73. 5
	· · · · · · · · · · · · · · · · · · ·	1	882					
Total	2, 610	642, 127, 88	1, 082	288, 967. 60	1, 371	311, 111, 26	157	42, 049, 0
)swegatchic, New York lape Vincent, New York hawego, New York lenesec, New York Viagara, New York	70 23	3, 057, 16 4, 378, 51 13, 213, 09 3, 822, 99 4, 130, 77	15 20 24 16	878. 64 746. 95 1, 030. 09 2, 485. 00 2, 306. 00	7 34 46 7 8	702. 61 3, 596, 16 12, 183. 00 1, 337. 99 1, 824. 77	9	1, 475, 9 35, 4
Buffalo Creek, New York Dunkirk, New York	219	109, 574, 60 47, 13	12× 1	70, 996. 15 22, 97	61	30, 092, 54 24, 16	30	8, 485. 9
Brie, Pennsylvania Juyahoga, Ohio landusky, Ohio	13	29, 609, 38 81, 328, 89 16, 581, 25	31 70 29	24, 793, 73 36, 621, 45 7, 201, 87	12 112 56	4, 815, 65 42, 841, 38 9, 017, 78	5 2	1, 886, 0 361. 0
fiami, Ohio betroit, Michigan Luron, Michigan uperior, Michigan	47 312 343 89	15, 012, 59 82, 933, 86 69, 113, 96 12, 799, 40	28 136 118 58	7, 503, 25 43, 600, 49 24, 466, 24 6, 975, 83	15 155 154 31	5, 829. 94 34, 949. 65 24, 085. 75 5, 823. 57	21 71	1, 679. 4 4, 383. 7 20, 561. 9
Michigan, Michigan	345 368 362 11	37, 610, 93 73, 179, 21 85, 447, 11 287, 05	474 117 100 9	17, 479, 33 12, 534, 43 29, 116, 85 208, 33	158 251 261 2	17, 006, 13 60, 644, 78 56, 256, 68 78, 72	13	3, 125. 4 73, 5

TABLE 28.—FLEETS FOR THE 10 YEARS, 1880-1889, ETC.—Continued.

1883

	T	OTAL.	STE	AMERS.	SAILING	VESSELS.	BAI	RGES.
CUSTOMS DISTRICTS.	Number.	Tonnage.	Number.	Tonnage.	Number.	Tonnage.	Number.	Tonnage.
Total	-,	651, 792. 75	1, 130	301, 256. 87	1, 332	307, 734, 46	150	42, 801. 4
Dawegatchie, New York	49 69 24	2, 492, 99 3, 465, 25 13, 312, 97 3, 809, 71 3, 676, 71	13 16 24 17 8	814. 02 566. 36 1, 123. 96 2, 500. 60 1, 511. 22	3 32 45 7	346. 06 2, 863. 49 12, 189. 01 1, 309. 11 2, 165. 49	7	1, 332. 9 35. 4
Buffalo Creck, New York	215	116, 483, 40 24, 16	127	77, 832. 61	59 1	30, 069. 50 24. 16	29	8, 581. 2
Erio, Pennsylvania Yuyahoga, Ohio Sandusky, Ohio	192	28, 513. 65 78, 251. 25 18, 187. 99	27 74 33	24, 737, 58 36, 197, 64 7, 305, 69	10 105 48	3, 776, 07 41, 033, 77 10, 5 20, 70	4 2	1, 019. 8 361. 6
diami, Ohio Detroit, Michigan Huron, Michigan superior, Michigan	309	15, 947, 55 88, 702, 02 72, 304, 18 16, 100, 82	27 145 134 58	7, 997, 65 49, 427, 40 25, 802, 57 7, 024, 66	17 153 154 32	6, 270, 50 36, 275, 85 22, 908, 45 9, 076, 16	11 78	1, 679, 4 2, 998, 7 23, 593, 1
dichigan, Michigan hicago, Illinois dilwaukee, Wisconsin uluth, Minnesota	3/2	36, 763, 82 70, 979, 22 82, 402, 25 374, 81	180 130 107 10	17, 289, 62 13, 433, 40 27, 317, 08 374, 81	158 242 257	16, 348, 73 57, 545, 82 55, 011, 59	13	3, 125, 4 73, 5
	!	1	884		!	<u>-</u>		
Total	2,558	657, 507. 36	1, 144	318, 962. 32	1, 294	305, 219, 52	120	33, 325. 5
)swegatchie, New York	50	2, 688, 85 3, 292, 91 12, 754, 83	13 . 19 21	909, 82 690, 92 1, 092, 64	7 30 45	394. 05 2, 566. 59 11, 662. 19	9	1, 384. 9 35. 4
Genesee, New York	16	2, 533. 31 3, 756. 96	15 7	1, 241. 61 1, 591. 47	8	1, 291. 70 1, 909. 23	1	256. 2
Buffalo Creek. New York Untkirk, New York Eric, Pennsylvania uyahoga, Ohio	1 36	108, 199, 29 24, 16 28, 373, 37 87, 010, 15	134 27 78	79, 918. 59 24, 737. 58 43, 086. 39	40 1 9 104	20, 659, 90 24, 16 3, 635, 79 43, 344, 18	26 2	7, 620. 8 579. 5
sandusky, Ohio	83	22, 086. 58 17, 426. 56	28	7, 280. 01 8, 150. 85	47 20	14, 444, 97 7, 596, 31	4	361, 6 1, 679, 4
Bulling (Michigan	309	93, 546, 94 79, 210, 45 16, 490, 50	144 143 61	54, 291, 00 30, 220, 62 7, 843, 65	154 163 32	36, 257, 17 31, 361, 72 8, 646, 85	11 60	2, 998. 7 17, 628. 1
Michigan, Michiganhicago, IllinoisMilwaukee, Wisconsin	366	34, 039. 09 68, 821. 93 76, 403. 31 848. 17	173 129 100 18	18, 673, 19 13, 970, 79 24, 503, 06 760, 14	143 237 247 1	14, 585, 28 54, 851, 15 51, 900, 25 88, 03	4	780. 6
		1	.885		·			
Total	2, 540	672, 631. 47	1, 154	332, 365. 33	1, 282	310, 383, 47	104	29, 882. 6
Dewegatchie, New York	31 52 59	3, 497. 74 4, 075. 85 12, 952. 17 2, 311. 54 4, 440. 30	15 21 20 12 7	933. 60 1, 443. 57 2, 286. 33 1, 019. 84 1, 591. 47	31 38 6 11	538, 52 2, 632, 28 10, 464, 79 1, 291, 70 2, 848, 83		2, 025. 6 201. 0
Buffalo Creek, New York	199	110, 761. 44 24. 16	132	82, 100. 94	39	19, 809, 92 24, 16	28	8, 850. 5
črie, Pennsylvania. 'uyahoga, Ohioandusky, Ohio	39	28, 491, 04 92, 640, 52 21, 842, 07	29 81 31	24, 714, 97 48, 900, 43 7, 310, 29	10 101 45	3, 776. 07 43, 537. 04 14, 242. 38	1 1	203. 0 289. 4
fiami, Ohio	302 362	17, 405, 17 93, 718, 70 83, 742, 69 16, 246, 60	30 138 141 63	7, 684, 54 52, 744, 83 32, 831, 20 8, 033, 86	20 154 179 28	8, 041, 23 38, 198, 34 37, 943, 77 8, 212, 74	10 10 42	1, 079. 4 2, 775. 5 12, 967. 7
lichigan, Michigan Thicago, Illinois filwaukee, Wisconsin	361	32, 683, 25 67, 486, 98 79, 358, 84	169 135 110	17, 249, 26 15, 040, 76 27, 724, 76	143 226 245	14, 653, 37 52, 446, 22 51, 634, 08	4	780. 6

COMPARATIVE STATISTICS—Continued.

TABLE 28.—FLEETS FOR THE 10 YEARS, 1880-1889, ETC.—Continued.

1886

		1	.886					
diameter .	TO	OTAL.	STE.	AMERS.	SAILING	VESSELS.	BAR	OES.
CUSTOMS DISTRICTS.	Number.	Tonnage.	Number.	Tonnage.	Number.	Tonnage.	Number.	Tonnage.
Total	2, 547	683, 154. 43	1, 258	378, 376. 16	1, 195	279, 573. 84	94	25, 204, 43
Oswegatchie, New York Cape Vincent, New York Oswego, New York Genesee, New York Niagara, New York	51 54 17	5, 150, 92 4, 040, 56 11, 421, 61 2, 022, 82 4, 505, 58	17 20 19 12 7	1, 058, 73 1, 410, 71 1, 897, 57 1, 034, 63 1, 469, 99	9 31 34 5	939. 77 2, 629. 85 9, 322. 99 988. 19 3, 035, 59	15	3, 152, 42 201, 6 5
Buffalo Creek, New York Dunkirk, New York Erie, Pennsylvania Cuyahoga, Ohio Sandusky, Ohio	193 1 37 194	103, 745, 43 24, 16 28, 141, 97 101, 492, 56 24, 019, 61	132 29 85 36	78, 954. 00 24, 720. 63 54, 792. 13 9, 319. 60	36 1 8 108 45	18, 312, 87 24, 16 3, 421, 34 46, 327, 55 14, 410, 11	25 1 1	6, 478. 56 372. 88 289. 90
Miami, Ohio Detroit, Michigan Huron, Michigan Superior, Michigan	57 305	17, 862, 90 100, 146, 34 86, 292, 25 15, 807, 16	30 140 138 76	6, 710. 48 55, 879. 98 34, 273. 37 9, 537. 84	23 154 188 26	9, 473. 02 41, 407. 48 42, 737. 86 6, 269. 32	11 31	1, 679. 40 2, 858. 86 9, 281. 02
Michigan, Michigan Chicago, Illinois Milwaukee, Wisconsin Duluth, Minnesota	352 352	31, 875, 68 66, 730, 22 79, 052, 32 822, 34	171 216 110 20	17, 157, 75 51, 010, 77 28, 523, 37 624, 61	137 136 242 1	13, 937, 31 15, 719, 45 50, 528, 95 88, 03	1	780. 62 109. 70
		1	.887					
Total	2, 541	721, 307. 70	1, 207	387, 209, 01	1, 252	312, 667. 22	82	21, 431. 47
Oswegatchie, New York Cape Vincent, New York Oswego, New York Genesee, New York Niagara, New York	44 52 44 21 14	10, 069. 70 4, 081. 67 9, 625. 82 2, 469. 32 3, 978. 16	20 20 18 16 5	6, 235, 71 1, 414, 26 1, 839, 07 1, 481, 13 1, 694, 14	8 32 26 5	659, 22 2, 667, 41 7, 786, 75 988, 19 2, 284, 02	16	3, 174. 77
Buffalo Creek, New York Dunkirk, New York Erie, Pennsylvania Cuyahoga, Ohio Sandusky, Ohio	192 2 35 205 76	93, 112, 41 47, 66 30, 482, 92 123, 888, 58 24, 023, 70	139 1 29 93 37	72, 919, 14 23, 50 27, 678, 98 70, 720, 70 10, 415, 42	28 1 6 111 38	13, 845, 44 24, 16 2, 803, 94 52, 795, 00 13, 318, 88	25	6, 347, 83 372, 86 289, 40
Miami, Ohio Detroit, Michigan Huron, Michigan Superior, Michigan	285 377	17, 900. 27 103, 032. 26 102, 072. 44 17, 091. 61	32 137 145 78	7, 877, 68 58, 893, 89 44, 594, 32 10, 287, 61	27 140 209 27	8, 343, 19 42, 012, 43 50, 718, 56 6, 804, 00	4 8 23	1, 679, 40 2, 125, 94 6, 759, 56
Michigan, Michigan Chicago, Illinois Milwaukee, Wisconsin Duluth, Minnesota	356 350	29, 761. 36 72, 420. 05 76, 515. 28 734. 49	168 137 114 18	16, 628, 74 22, 605, 98 31, 361, 98 536, 76	129 219 236 1	12, 560, 63 49, 814, 07 45, 153, 30 88, 03	3	571. 2 9 109. 76
		1	888				•	
Total	2, 641	806, 189. 10	1, 323	476, 035. 74	1, 242	312, 285. 94	76	17, 867, 42
Oswegatchie, New York	47 58 41 20 18	11, 225. 71 4, 581. 85 7, 481. 47 2, 717. 03 4, 554. 60	21 24 19 15 9	6, 683. 49 1, 567. 30 1, 842. 40 1, 571. 73 2, 270. 58	9 34 22 4 9	1, 328. 08 3, 014. 55 5, 639. 07 755. 49 2, 284. 02	17	3, 214, 14 349, 81
Buffalo Creek, New York. Dunkirk, New York. Erie, Pennsylvania Cuyahoga, Ohio. Sandusky, Ohio.	211 1 34 221 79	114, 405, 77 24, 16 27, 749, 22 147, 589, 39 27, 443, 61	30 117 44	95, 968, 36 25, 969, 47 95, 527, 66 14, 933, 09	25 1 4 103 34	13, 248, 27 24, 16 1, 759, 75 51, 688, 85 12, 221, 12	22 1	5, 189. 14 372. 9a 280. 40
Miami, Ohio Detroit, Michigan Huron, Michigan Superior, Michigan	64 292 393 120	18, 755, 39 113, 920, 50 113, 413, 54 21, 668, 43	34 146 153 84	7, 959, 87 70, 963, 84 49, 377, 62 12, 951, 08	28 140 219 36	10, 482, 97 42, 285, 88 57, 717, 19 8, 717, 35	2 6 21	312, 55 670, 78 6, 318, 73
Michigan, Michigan. Chicago, Illinois Milwaukee, Wisconsin Duluth, Minnesota	295 845 374 28	27, 747, 62 74, 226, 75 86, 851, 99 1, 832, 07	169 144 125 25	15, 756, 66 28, 453, 90 43, 012, 65 1, 206, 04	• 123 201 249 1	11, 418. 97 45, 772. 85 43, 839. 34 88. 03	3	571. 99 534. 00

TABLE 28.—FLEETS FOR THE 10 YEARS, 1880-1889, ETC.—Continued.

1889

augrava viennan	TC	OTAL.	STE.	AMERS.	SAILING	VESSELS.	BAF	GES.
CUSTOMS DISTRICTS.	Number.	Tonnage.	Number.	Tonnage.	Number.	Tonnage.	Number.	Tonnage.
Total	2, 787	900, 846. 75	1, 436	571, 204. 78	1, 251	322, 694. 29	50	6, 947. 6
Oswegatchie, New York Cape Vincent, New York Oswego, New York Genesee, New York Niagara. New York	59 36 24	13, 251. 25 4, 451. 67 8, 420. 30 3, 779. 69 5, 724. 32	21 24 19 16	7, 767. 11 1, 683. 96 3, 582. 18 1, 769. 31 3, 440. 30	9 34 17 8	2, 538, 64 2, 694, 35 4, 838, 12 2, 010, 38 2, 284, 02		2, 945 . 5 73. 3
Buffalo Creek, New York Dunkirk, New York Brie, Pennsylvauia Cuyahoga, Ohio Sandusky, Ohio	227 4 38 241	127, 379, 04 508, 30 29, 374, 58 176, 804, 22 30, 579, 75	183 3 34 132 49	109, 439, 62 484, 14 28, 063, 24 119, 293, 27 16, 691, 69	34 1 4 106 33	17. 024. 34 24. 16 1, 311. 34 56, 785. 99 13, 888. 06	10	
Miami, Ohio	281 450	16, 563, 90 127, 430, 66 131, 632, 10 30, 345, 42	36 149 186 90	9, 497, 00 87, 003, 48 60, 109, 41 22, 850, 82	23 125 263 32	7, 066, 90 39, 338, 72 71, 432, 36 7, 494, 60	7	1, 088. 4 90. 3
Michigan, Michigan. Chicago, Illinois. Milwaukee, Wisconsin Duluth, Minnesota	342	30, 381, 58 73, 528, 81 88, 753, 12 1, 938, 04	178 151 131 26	18, 157, 52 28, 897, 39 51, 162, 33 1, 312, 01	123 191 238	11, 652, 07 44, 631, 42 37, 590, 79 88, 03	3	571. 9 538. 0

RECAPITULATION.

	т	OTAL.	STE	AMERS.	SAILIN	o VESSELS.	ВА	RGES.
YEARS.	Number.	Tonnage.	Number.	Tonnage.	Number.	Tonnage.	Number.	Tonnage.
Total for 10 years	25. 767	6, 889, 190. 13	11, 616	3, 521, 093, 52	13, 002	3, 067, 206. 56	1, 149	300, 890. 05
1880 1881 1882 1883 1884	2, 487 2, 494 2, 610 2, 612 2, 558	552, 341, 59 601, 291, 10 642, 127, 88 651, 792, 75 657, 507, 36	912 970 1,082 1,130 1,144	209, 465, 06 257, 250, 65 288, 967, 60 301, 256, 87 318, 962, 32	1, 415 1, 368 1, 371 1, 332 1, 294	302, 264, 70 303, 271, 86 311, 111, 26 307, 734, 46 305, 219, 52	160 156 157 150 120	40, 611, 83 40, 768, 59 42, 049, 02 42, 801, 42 33, 325, 52
1885 1886 1887 1888	2, 540 2, 547 2, 541 2, 641 2, 787	672, 631. 47 683, 154. 43 721, 307. 70 806, 189. 10 900, 846. 75	1, 154 1, 258 1, 207 1, 323 1, 436	382, 365. 33 378, 376. 16 387, 209. 01 476, 035. 74 571, 204. 78	1, 282 1, 195 1, 252 1, 242 1, 251	310, 383, 47 279, 573, 84 312, 667, 22 812, 285, 94 322, 694, 29	104 94 82 76 50	29, 882, 67 25, 204, 43 21, 431, 47 17, 867, 42 6, 947, 68

COMPARATIVE STATISTICS—Continued.

TABLE 29.—TONNAGES FOR THE 10 YEARS, 1880-1889—NUMBER, AGGREGATE, AND AVERAGE TONNAGE OF ALL CRAFT REGISTERED AT THE CUSTOMS DISTRICTS OF THE GREAT LAKES AND ST. LAWRENCE RIVER.

STEAMERS.

							;			3					
	<u> </u>	1880			1881		! !	1882			1888			1884	
CUSTOMS DISTRICTS.	Num- ber.	Tonnage.	Aver- age.	Num- ber.	Tonnage.	Aver- age.	Num- ber.	Tounage.	Average.	Num- ber.	Tonnage.	Aver- age.	Num- ber.	Tonnage.	Average.
wwegatchie, New York ape Vincent, New York swego, New York cresee, New York ingars, New York	19 22 12	765 647 957 1,977 1,786	64 34 44 165 447	12 13 25 14 4	824 707 1,036 2,300 1,511	69 54 41 164 378	15 20 24 16 8	879 747 1, 030 2, 485 2, 306	59 37 43 155 288	13 16 24 17 8	814 566 1, 124 2, 501 1, 511	63 35 47 147 189	13 19 21 15 7	910 691 1, 093 1, 242 1, 591	·
uffalo ('reek, New York		57, 958 37	504 19	125	63, 410 23	507 23	128 1	70, 996 23	555 23	127	77, 833	613	134	79, 919	56
unkirk, New York rie, Pennsylvania uyahoga, Ohio andusky, Ohio	23 55	18, 353 21, 313 4, 743	798 388 169	27 65 28	23, 624 33, 019 5, 884	875 508 210	31 70 29	24, 794 36, 621 7, 202	800 523 248	27 74 33	24, 738 36, 198 7, 306	916 489 221	27 78 34	24, 738 43, 086 7, 280	9) 5) 2)
iami, Ohio. etroit, Michigan uron, Michigan ıperior, Michigan	113	3, 417 34, 738 18, 363 2, 180	149 307 177 46	26 121 118 50	7, 330 39, 609 24, 396 3, 632	282 327 207 73	28 136 118 58	7, 503 43, 600 24, 466 6, 976	268 321 207 120	27 145 134 58	7, 998 49, 427 25, 803 7, 025	296 341 193 121	28 144 143 61	8, 151 54, 291 30, 221 7, 844	21 37 21
ichigan, Michigan hicago, Illinois illwaukee, Wicconsin uluth, Minnesota	. 109 . 89	15, 145 9, 950 16, 981 155	117 91 191 26	138 107 89 7	15, 430 11, 916 22, 430 170	112 111 252 24	174 117 100 9	17, 479 12, 534 29, 117 208	100 107 291 23	180 130 107 10	17, 290 13, 433 27, 317 375	96 103 255 38	173 129 100 18	18, 673 13, 971 24, 503 760	10 10 20
		1885			1886			1887			1888	- 5000	n ::	1889	
CUSTOMS DISTRICTS.	Num- ber.	Tonnage.	Aver-	Num- ber.	Tonnage.	Aver- age.	Num- ber.	Tonnage.	Average.	Num- ber.	Tonnage.	Aver-	Num- ber.	Tonnage.	Aver
swegatchie, New York ape Vincent, New York swego, New York enesce, New York lagara, New York	21 20 12	934 1,444 2,286 1,020 1,591	62 69 114 85 227	17 20 19 12 7	1, 059 1, 411 1, 898 1, 035 1, 470	62 71 100 86 210	20 20 18 16 5	6, 236 1, 414 1, 839 1, 481 1, 694	312 · 71 102 93 339	21 24 19 15	6, 683 1, 567 1, 842 1, 572 2, 271	318 65 97 105 252	21 24 19 16 8	7, 767 1, 684 3, 582 1, 769 3, 440	37 18 11 43
uffalo Creek, New York	132	82, 101	622	132	73, 954	598	139	72, 919 24	525 24	164	95, 968	585	183	109, 440	50
rie, Pennsylvania ıyahoga, Ohio ındusky, Ohio	29 81	24, 715 48, 900 7, 310	852 604 236	29 85 36	24, 721 54, 792 9, 320	852 645 259	29 93 37	27, 679 70, 721 10, 415	954 760 281	30 117 44	25, 989 95, 528 14, 933	866 816 339	34 132 49	28, 063 119, 293 16, 692	10 83 94
iami, Ohiotroit, Michiganron, Michiganperior. Michigan	138 141	7, 685 52, 745 32, 831 8, 034	256 382 233 128	30 140 138 76	6, 710 55, 880 34, 273 9, 538	224 399 248 126	32 137 145 78	7, 878 58, 894 44, 594 10, 288	246 430 308 132	34 146 153 84	7, 960 70, 964 49, 378 12, 951	234 486 323 154	36 149 186 90	9, 497 87, 003 60, 109 22, 851	3 5 2
ichigan, Michigan nicago, Illinois	135 110	17, 249 15, 041 27, 725 755	102 111 252 38	171 216 110 20	17, 158 51, 011 28, 523 625	100 236 259 31	168 137 114 18	16, 629 22, 606 31, 362 537	99 165 275 30	169 144 125 25	15, 757 28, 454 43, 013 1, 206	93 198 344 48	178 151 131 26	18, 158 28, 897 51, 162	10 19 30

SAILING VESSELS.

		1880			1881			1882			1888		\ ! •	1884	
CUSTO:18 DISTRICTS.	Num- ber.	Tonnage.	Average.	Num- ber.	Tonnage.	Aver-	Num- ber.	Tounage.	Average.	Num- ber.	Tonnage.	Aver- age.	Num- ber.	Tonnage.	Aver
bawegatchie, New York ape Yincent, New York wwego, New York senesee, New York Yingara, New York	35 66	358 4, 634 16, 108 1, 140 1, 672	72 132 244 114 209	7 26 51 8 7	620 4, 329 13, 231 1, 393 1, 813	89 167 259 174 259	7 34 46 7 8	703 3, 596 12, 183 1, 338 1, 825	100 106 265 191 228	3 32 45 7 9	346 2, 863 12, 189 1, 309 2, 165	115 89 271 187 241	7 30 45 6 8	394 2, 567 11, 662 1, 292 1, 909	5 21 21 22
ouffalo Creek, New York Dunkirk, New York Trie, Pennsylvania Juyahoga, Ohio andusky, Ohio	17 119	36, 877 607 5, 111 42, 422 9, 008	479 304 426 356 170	65 1 12 112 50	30, 910 24 4, 702 40, 962 9, 301	476 24 392 366 186	61 1 12 112 56	30, 033 24 4, 816 42, 841 9, 018	493 24 401 383 161	59 1 10 105 48	30, 070 24 3, 776 41, 034 10, 521	510 24 378 391 219	40 1 9 104 47	20, 660 24 3, 636 43, 344 14, 445	- 21 40 41 31
iami, Ohio etroit, Michigan uron, Michigan ıperior, Michigan	1 66 130	4, 845 29, 913 12, 875 3, 282	202 180 99 164	18 159 144 29	6, 105 33, 574 17, 207 5, 505	339 211 119 190	155 154 31	5, 830 34, 950 24, 086 5, 824	389 225 156 188	17 153 154 32	6, 271 36, 276 22, 908 9, 076	369 237 149 284	20 154 163 32	7, 596 36, 257 31, 362 8, 647	34 25 16 27
lichigan, Michigan hicago, Illinois ilwaukee, Wisconsin uluth, Minnesota	275	16, 036 66, 528 50, 800	104 242 197 50	154 260 263 2	16, 423 63, 679 53, 416 79	107 245 203 40	158 251 261 2	17, 006 60, 645 56, 257 79	108 242 216 40	158 242 257	16, 349 57, 546 55, 012	103 238 214	143 237 247 1	14, 585 54, 851 51, 900 88	16 23 21 8

TABLE 29.—TONNAGES FOR THE 10 YEARS, 1880-1889—Continued.

SAILING VESSELS-Continued.

		1885		1 	1886		:	1887			1888			1889	
CUSTOMS DISTRICTS.	Num- ber.	Tonnage.	Aver-	Num- ber.	Tonnage.	Aver- age.	Num- ber.	Tonnage.	Aver- age.	Num- ber.	Tonnage.	Aver- age.	Num- ber.	Tonnage.	Aver- age.
Oswegatchie, New York. Cape Vincent, New York. Oswego, New York Genesce, New York Niagara, New York	31 38 6	539 2, 632 10, 465 1, 292 2, 849	135 85 275 215 259	9 31 34 5 11	940 2, 630 9, 323 988 3, 036	104 85 274 198 276	32 26 5 9	659 2, 667 7, 787 988 2, 284	82 83 300 198 254	9 34 22 4 0	1, 328 3, 015 5, 699 755 2, 284	148 89 256 189 254	9 34 17 8 9	2, 539 2, 694 4, 838 2, 010 2, 284	282 78 285 261 254
Buffalo Creek, New York Dunkirk, New York Eric, Pennsylvania Cuyahoga, Ohio Sandusky, Ohio	1 10 101	19, 810 24 3, 776 43, 537 14, 242	508 24 378 431 316	36 1 8 108 45	18, 313 24 3, 421 46, 328 14, 410	509 24 428 429 320	28 1 6 111 38	13, 845 24 2, 804 52, 795 13, 319	494 24 467 476 351	25 1 4 103 34	13, 248 24 1, 760 51, 689 12, 221	530 24 440 502 359	34 1 4 106 33	17, 024 24 1, 311 56, 786 13, 888	501 24 328 536 421
Miami, Ohio Detroit, Michigan Huron, Michigan Superior, Michigan	154 179	8, 041 38, 198 37, 944 8, 213	402 248 212 293	23 154 188 26	9, 473 41, 407 42, 738 6, 269	412 269 227 241	27 140 209 27	8, 343 42, 012 50, 719 6, 804	309 300 243 252	28 140 219 36	10, 483 42, 286 57, 717 8, 717	374 302 264 242	23 125 263 32	7, 067 39, 339 71, 432 7, 495	307 315 272 234
Michigan, Michigan Chicago, Illinois Milwaukee, Wisconsin Duluth, Minnesota	226 245	14, 653 52, 446 51, 634 88	102 232 211 88	137 136 242 1	13, 937 15, 719 50, 529 88	102 116 209 88	129 219 236 1	12, 561 49, 814 45, 153 88	97 227 191 88	123 201 249	11, 419 45, 773 43, 839 88	93 228 176 88	123 191 238 1	11, 652 44, 631 37, 591 88	95 234 158 88

BARGES.

•		1880] .	1881		l	1882		ľ	1888		1	1884	
CUSTOMS DISTRICTS.	Num- ber.	Tonnage.	Ayer- age.	Num- ber.	Tonnage.	Aver-	Num- ber.	Tonnage.	Aver- age.	Num- ber.	Tonnage.	Aver- age.	Num- ber.	Tonnage.	Aver-
Dawegatchie, New York	:	'	178	8	1, 356	170	9	1, 476 35	104 35	7	1, 333 35	190 35	9	1, 385 35	15
Genesce, New York Niagara, New York	:			,1	1		1			ļ:	 	• • • • • • •	i	256	25
Buffalo Creek, New York Dunkirk, New York	27	6, 422	238	25	6, 437	257	30	8, 480	283	29	8, 581	296	26	7, 621	29
Erie, Pennsylvania			551	4	1,567	392	5	1.866	873	4	1.020	255	2	580	29
Sandusky, Ohio	2	413	207	2	362	181	2	362	181	2	362	181	2	362	18
Miami, Ohio	. 34	2, 244 6, 164 20, 375	374 181 295	5 23 75	1, 903 4, 516 21, 428	381 196 286	21 71	1, 679 4, 384 20, 562	420 209 290	11 78	1, 679 2, 999 23, 593	420 273 302	11 60	1, 679 2, 999 17, 628	42 27 29
Michigan, Michigan	. 13	3,125	240	13	3, 125	240	13	3, 125	240	13	3, 125	240	4	781	19
Milwaukee, Wisconsin Duluth, Minnesota	. 1	74	74	1	74	74	1	74	74	1	74	74			
		1885			1886			1887		İ	1888		<u></u>	1889	
CUSTOMS DISTRICTS.	Num- ber.	Tonnage.	Aver- age.	Num- ber.	Tonnage.	Aver- age.	Num- ber.	Tonnage.	Aver- age.	Num- ber.	Tonnage.	Aver- age.	Num- ber.	Tonnage.	Average.
Dawegatchie, New York		2, 026	109	15	3, 152	210	16	3, 175	198	17	3, 214	189	23	2, 946 73	12
Jawego, New York Jenesce, New York Niagara, New York	.' 1 		201	, 1	201	201		'		1	390	390	1	!	
Buffalo Creek, New York	28	8, 851	316	25	6, 479	259	25	6, 348	254	22	5, 189	236	10	915	9
Erie, Pennsylvania Juyahoga, Ohio Sandusky, Ohio	.! 1	203	203 289	1	373 290	373 290	1	373 289	373 289	1 1	373 289	373 289	3	725	24
Mami, Ohio Detroit, Michigan Huron, Michigan Superior, Michigan	. 10	1, 679 2, 776 12, 968	420 278 309	11 31	1, 679 2, 859 9, 281	420 260 299	4 8 23	1, 679 2, 126 6, 760	420 266 294	2 6 21	313 671 6, 319	157 112 301	7 1	1,088 90	15 9
Michigan, Michigan	. 4	781	195	4	781	195	3	572	191	3	572	191	3	572	19
dilwaukee, Wisconsin			110	i	110	110	' ····i··	110	110	2	538	269	2	538	26

COMPARATIVE STATISTICS—Continued.

TABLE 29.—TONNAGES FOR THE 10 YEARS, 1880-1889—Continued.

ALL CRAFT.

	1	1880			1881			1882			1888			1984	
CUSTOMS DISTRICTS.	Num- ber.	Tonnage.	Aver- age.	Num- ber.	Tonnage.	Aver- age.	Num- ber.	Tonnage.	Aver- age.	Num- ber.	Tonnage.	Aver- age.	Num- ber.	Tonnage. 2, 689 3, 293 12, 755 2, 534 3, 756 108, 200 24 28, 374 87, 010 22, 087 17, 426 93, 547 79, 211 16, 491 34, 039 68, 832 76, 403 848 1889 Tonnage. 13, 252 4, 451 3, 779 5, 724 127, 379 5, 724 127, 379 16, 584	Average.
Oswegatchie, New York Cape Vincent, New York Oswego, New York Genesee, New York Niagara, New York	54 88 22	2, 367 5, 281 17, 065 3, 117 3, 458	99 98 194 142 288	27 39 76 22 11	2, 800 5, 036 14, 267 3, 693 3, 324	104 129 188 168 302	31 55 70 23 16	3, 058 4, 378 13, 213 3, 823 4, 131	99 80 189 166 258	23 49 69 24 17	2, 493 3, 464 13, 313 3, 810 3, 676	108 71 193 159 216	29 50 66 21 16	3, 293 12, 755 2, 534	9 6 19 12 23
Buffalo Creek, New York Dunkirk, New York Krie, Pennsylvania Cuyahoga, Ohio Sandusky, Ohio	35 175	101, 257 644 23, 464 64, 286 14, 164	462 161 670 367 171	215 2 39 181 80	100, 757 47 28, 326 75, 548 15, 547	469 24 726 417 194	219 2 43 187 87	109, 575 47 29, 610 81, 328 16, 582	500 24 689 435 191	215 1 37 183 83	116, 484 24 28, 514 78, 252 18, 189	542 24 771 428 219	200 1 36 184 83	24 28. 374 87, 010	54: 2/ 78: 47: 28
Miami, Ohio Detroit, Michigan Huron, Michigau Superior, Michigan	313 303	10, 506 70, 815 51, 613 5, 462	198 226 170 82	49 303 337 79	15, 338 77, 699 63, 031 9, 137	313 256 187 116	47 312 . 343 89	15, 012 82, 934 69, 114 12, 800	319 266 201 144	48 309 366 90	15, 948 88, 702 72, 304 16, 101	332 287 198 179	52 309 366 93	93, 547 79, 211	33 30 21 17
Michigan, Michigan Chicago, Illinois Milwaukee, Wisconsin Duluth, Minnesota	384 348	34, 306 76, 478 67, 855 205	116 199 195 29	305 367 353 9	34, 978 75, 595 75, 920 249	115 206 215 28	345 368 362 11	37, 610 73, 179 85, 448 287	109 199 236 26	351 372 365 10	36, 764 70, 979 82, 403 375	105 191 226 38	320 366 347 19	68, 822 76, 403	10 18 23
		1885		İ	1886		ij	1887	,	i	1888			1889	
CUSTOMS DISTRICTS.	Num- ber.	Tonnage.	Aver- age.	Num- ber.	Tonnage.	Aver- age.	Num- ber.	Tonnage.	Aver- age.	Num- ber.	Tonnage.	Aver- age.	Num- ber.	Tonnage.	Aver-
Oswegatchie, New York Cape Vincent, New York Oswego, New York Genesee, New York Niagara, New York	59 18	3, 499 4, 076 12, 952 2, 312 4, 440	113 78 220 128 247	41 51 54 17 18	5, 151 4, 041 11, 422 2, 023 4, 506	126 79 212 119 250	44 52 44 21 14	10, 070 4, 081 9, 626 2, 469 3, 978	. 229 78 219 118 284	47 58 41 20 18	11, 225 4, 582 7, 481 2, 717 4, 555	239 79 182 136 253	53 59 36 24 17	4. 451 8, 420 3, 779	25 25 15 33
Buffalo Creek, New York Dunkirk, New York Erie, Pennsylvania Cuyahoga, Ohio Sandusky, Ohio	1 39 183	110, 762 24 28, 491 92, 640 21, 841	557 24 731 506 284	193 1 37 194 82	103, 746 24 28, 142 101, 493 24, 020	538 24 761 523 293	192 2 35 205 76	93, 112 48 30, 483 123, 889 24, 023	485 24 871 604 316	211 1 34 221 79	114, 405 24 27, 749 147, 590 27, 443	542 24 816 668 347	227 4 38 241 82	508 29, 374 176, 904	54 12 77 73
Miami, Ohio. Detroit, Michigan Huron, Michigan Superior, Michigan	302 362	17, 405 93, 719 83, 743 16, 247	322 310 231 179	57 305 357 102	17, 862 100, 146 86, 292 15, 807	313 328 242 155	63 285 377 105	17, 900 103, 032 102, 073 17, 092	284 362 271 163	64 292 393 120	18, 756 113, 921 113, 414 21, 668	293 390 289 181	59 281 450 122	16, 564 127, 430 131, 631 30, 346	25 25 24
Michigan, Michigan		32, 683 67, 487 79, 359 953	103 187 224 43	812 352 352 22	81, 876 66, 730 79, 052 823	102 190 225 37	300 356 350 20	29, 762 72, 420 76, 515 735	99 203 219 37	295 345 374 28	27, 748 74, 227 86, 852 1, 832	94 215 232 65	304 342 369 29	30, 382 73, 528 88, 753 1, 938	10 21 24

TABLE 30.—TONNAGE FLUCTUATIONS FOR THE 10 YEARS, 1880-1889—AVERAGE ANNUAL NUMBER AND TONNAGE OF ALL CRAFT REGISTERED AT THE CUSTOMS DISTRICTS OF THE GREAT LAKES AND ST. LAWRENCE RIVER, TOGETHER WITH THE INDICATED YEARS OF HIGHEST, LOWEST, AND MEAN REGISTRATION.

STE			

						ST	EAME	iks.								
CUSTOMS DISTRICTS.	Annual average number of ves-	ABOV	HEST E AV- LGE.	BELO	WEST OW AV-		EST TO	Fluctu-	Annual average regis-		ST ABOVE ERAGE.		ST BELOW ERAGE.		SEST TO ERAGE.	Fluctu-
		Year.	Num- ber.	Year.	Num- ber.	Year.	Num- ber.	acion.	tered ton- nage.	Year.	Number of tons.	Year.	Number of tons.	Year.	Number of tons.	
Oswegatchie, New York. Cape Vincent, New York. Oswego, New York. Genesee, New York. Niagara, New York.	. 20 . 21 . 15	1889 1889 1881 1883 1888	21 24 25 17 9	1880 1881 1887 1885 1880	12 13 18 12 4	1882 1886 1884 1881 1884	15 20 21 14 7	9 11 7 5 5	2, 687 1, 088 1, 669 1, 738 1, 917	1889 1889 1889 1883 1889	7, 767 1, 641 3, 542 2, 501 3, 440	1880 1883 1880 1885 1886	765 566 957 1,020 1,470	1886 1886 1887 1889 1880	1, 059 1, 411 1, 839 1, 769 1, 786	7, 002 1, 118 2, 625 1, 481 1, 970
Buffalo Creek, New York	. 2 . 29 . 85	1889 1889 1889 1889 1889	183 3 34 132 49	1880 1881 1880 1880 1880	115 1 23 55 28	1887 1880 1885 1886 1884	139 2 29 85 34	68 2 11 77 21	78, 950 118 24, 741 55, 947 9, 109	1889 1889 1889 1889 1889	109, 440 484 28, 063 119, 293 16, 692	1880 1881 1880 1880 1880	57, 958 23 18, 353 21, 313 4, 743	1886 1880 1884 1886 1886	78, 954 37 24, 738 54, 792 9, 320	51, 482 461 9, 710 97, 980 11, 949
Miami, Ohio Detroit, Michigan Huron, Michigan Superior, Michigan	. 137 . 138	1889 1889 1889 1889	36 149 186 90	1880 1880 1880 1890	23 113 104 47	1882 1887 1886 1885	28 137 138 63	13 36 82 43	7, 413 54, 715 34, 443 9, 132	1889 1889 1889 1889	9, 497 87, 003 60, 109 22, 851	1880 1880 1880 1880	3, 417 34, 738 18, 363 2, 180	1881 1884 1886 1886	7, 330 54, 291 34, 273 9, 538	6, 080 52, 266 41, 746 20, 671
Michigan, Michigan Chicago, Illinois Milwaukee, Wisconsin Duluth, Minnesota	. 138	1883 1886 1889 1889	180 216 131 26	1880 1881 1880 1880	129 107 89 6	1887 1887 1883 1887	168 137 107 18	51 109 42 20	16, 897 20, 781 30, 213 610	1884 1886 1889 1889	18, 673 51, 011 51, 162 1, 312	1880 1880 1880 1880	15, 145 9, 950 16, 981 155	1886 1887 1882 1886	17, 158 22, 606 29, 117 625	3, 526 41, 061 34, 181 1, 157
•		!	<u></u>		s	AILI	NG VI	ESSELS.	<u> </u>	<u>'</u>	·	11	1			
Oswegatchie, New York. Cape Vincent, New York. Oswego, New York Genesse, New York Niagara, New York Buffalo Creek, New York Dunkirk, New York Erie, Pennsylvania Cuyaloga, Ohio Sandusky, Ohio.	32 39 7 9 46 1 9	1889 1880 1880 1880 1886 1886 1880 1880 1880	9 35 66 10 11 77 2 12 119 56	1883 1881 1889 1888 1881 1888 1889 1889	3 26 17 4 7 25 1 4 101 33	1881 1883 1885 1882 1887 1884 1885 1884 1886 1885	7 32 38 7 9 40 1 9 108 45	6 9 49 6 4 52 1 8 18 23	843 3, 163 10, 342 1, 251 2, 212 23, 085 82 3, 511 46, 174 12, 037	1889 1880 1880 1889 1886 1886 1880 1880 1889	2, 539 4, 634 16, 108 2, 010 3, 036 36, 877 607 5, 111 56, 786 14, 445	1883 1884 1889 1888 1880 1888 1889 1889 1889 1881 1880	346 2, 567 4, 838 756 1, 672 13, 248 24 1, 311 40, 962 9, 008	1886 1888 1885 1884 1887 1884 1885 1886 1886 1888	940 3, 015 10, 465 1, 292 2, 284 20, 660 24 3, 421 46, 328 12, 221	2, 193 2, 067 11, 270 1, 254 1, 364 23, 629 583 3, 800 15, 824 5, 437
Miami, Ohio Detroit, Michigan Huron, Michigan Superior, Michigan Michigan, Michigan Chicago, Illinois Milwankee, Wisconsin Duluth, Minnesota	. 21 150 180 29 . 142 . 224	1888 1880 1889 1888 1882 1880 1881 1881	28 166 263 36 158 275 263 2	1882 1889 1880 1880 1888 1886 1887 1880	15 125 130 20 123 136 236	1884 1883 1885 1881 1884 1885 1888 1886	20 153 179 29 143 226 249	13 41 183 16 35 139 27	7, 405 37, 421 36, 899 6, 983 14, 462 51, 163 49, 613	1888 1888 1889 1888 1882 1880 1882 1889	10, 483 42, 286 71, 432 8, 717 17, 006 66, 528 56, 256 88	1880 1880 1880 1880 1888 1886 1889 1880	4, 845 29, 912 12, 875 3, 282 11, 419 15, 719 37, 591	1884 1885 1885 1887 1884 1885 1880 1882	7, 596 38, 198 37, 944 6, 804 14, 585 52, 446 50, 800 79	5, 638 12, 374 58, 557 5, 435 5, 587 50, 809 18, 665 38
	-	!}	i _	l:		·	ARGE	s.	<u>. </u>	<u> </u>	<u> </u>	li	<u> </u>	<u> </u>	·	'
Oswegatchie, New York Cape Vincent, New York Oswego, New York Genesse, New York	. 1 . 1	1889	23	1880	7	1885	12	16	2, 131 45 201 890	1888 1889	3, 214 73	1880 1880	1, 244 35	1885 1884	2, 026 35	1, 970 38
Niagara, New York	. 25	1882	30	1889	10	1886	25	20	256 6, 533	1885	8, 851	1889	915	1886	6, 479	7, 936
Erie, Pennsylvania Cuyahoga, Ohlo Sandusky. Ohlo Miami, Ohlo Detroit. Michigan	2 2	1882 1880 1880 1883	5 6 34 78	1880 1888 1888 1888 1889	1 1 2 6	1884 1883 1884 1884 1885	2 2 4 11 42	4 1 28 77	763 335 1, 615 3, 058 13, 900	1882 1880 1880 1880 1883	1, 866 413 2, 244 6, 164 23, 593	1885 1888 1888 1888 1889	203 289 313 671 90	1889 1883 1884 1884 1885	725 362 1, 679 2, 999 12, 968	1, 663 124 1, 981 5, 498 23, 508
Huron, Michigan Superior, Michigan Michigan, Michigan	. 7	1880	13	ļ	• ; • • • • •	1885	4	10	1, 656	1880	3, 125	1889	572	1885	781	2, 553
Chicago, Illinois	1 1	1889	·····2		•;••••• •;•••••	1887	1	2	74 281	1889	538	1885	110	1887	110	428
	'					AL	L CRA	FT.	<u>. </u>	1	<u>.</u>		·	:	!	-
Oswegatchie, New York Cape Vincent, New York Oswego, New York Genesee, New York Nigara, New York Buifalo Creek, New York Dunkirk, New York Eric, Pennsylvania Cuyahoga, Ohio Sandusky, Ohio Miami, Ohio Detroit, Michigan	52 60 21 16 209 2 37 195 81 55 301	1888 1880 1880 1883 1885 1880 1882 1880 1882 1888 1882	47 59 88 24 18 227 4 43 241 87 64 312	1883 1881 1889 1886 1881 1887 1883 1888 1880 1887	23 39 36 17 11 192 1 34 175 76 47 281	1882 1885 1885 1884 1882 1888 1887 1886 1886 1886	31 52 59 21 16 211 2 37 194 82 54 302	24 20 52 7 7 35 3 9 66 11	5, 660 4, 268 12, 051 3, 028 4, 155 108, 568 141 28, 253 102, 884 21, 448 16, 272 95, 195	1889 1880 1880 1882 1889 1889 1887 1889 1889 1888	13, 252 5, 281 17, 065 3, 823 5, 724 127, 379 644 30, 483 176, 804 30, 580 18, 756 127, 430	1880 1884 1888 1886 1881 1887 1883 1880 1880 1880 1880	2, 367 3, 293 7, 481 2, 023 3, 324 93, 112 24 23, 464 64, 286 14, 164 10, 506 70, 815	1886 1882 1886 1880 1882 1884 1887 1881 1886 1885	5, 151 4, 378 11, 422 3, 117 4, 131 108, 200 48 28, 326 101, 493 21, 842 16, 564 93, 719	10, 885 1, 988 9, 584 1, 800 2, 400 34, 267 620 7, 019 112, 518 16, 416 8, 250 56, 615
Huron, Michigan Superior, Michigan Michigan, Michigan Chicago, Illinois Milwaukee, Wisconsin Duluth, Minnesota	96 314 361 358	1889 1889 1883 1880 1888 1889	450 122 351 384 374 29	1880 1880 1888 1889 1884 1880	342 347	1883 1884 1885 1885 1885 1884	366 93 316 361 355 19	147 55 56 42 27 22	85, 243 16, 115 33, 015 71, 945 79, 856 825	1889 1889 1882 1880 1889 1889	131, 631 30, 346 37, 610 76, 478 88, 753 1, 938	1880 1880 1888 1886 1880 1880	51, 613 5, 462 27, 748 66, 730 67, 855 205	1886 1883 1885 1887 1885 1886	86, 292 16, 101 32, 683 72, 420 79, 359 823	80, 018 24, 884 9, 862 9, 748 20, 898 1, 733

Superior, Michigan
Michigan, Michigan
Chicago, Illinois
Milwaukee, Wisconsin
Duluth, Minnesots

STATISTICS OF TRANSPORTATION.

COMPARATIVE STATISTICS—Continued.

TABLE 81.—SHIPBUILDING FOR THE 10 YEARS, 1880-1889 (GENERAL)—NUMBER AND TONNAGE OF ALL STEAMERS, SAILING VESSELS, AND BARGES BUILT IN THE LAKE AND RIVER CUSTOMS DISTRICTS FOR THE YEARS 1880 TO 1880 INCLUSIVE

	<u> </u>	188	0					
	то	TAL.	STE	AMERS.	SAILING	VESSELS.	BAF	IGEs.
CUSTOMS DISTRICTS.	Number.	Tonnage.	Number.	Tonnage.	Number.	Tonnage.	Number.	Tonnage.
Total	117	20, 856. 86	63	14, 106. 46	47	5, 426. 76	7	1, 323. 6
Oswegatchie, New York	1 5	6. 93 308. 41	1 2	6. 93 113. 04	3	195. 37		
Oswego, New York Niagara, New York	$\frac{3}{2}$	589. 70 225. 06	ī	238. 41	2	351. 29 99. 06	1	126.0
Genesee, New York	1	125. 83	1	125. 83	[·····			· · · · · · · · · · · · · · · · · · ·
Buffalo Creek, New York	9	2, 151, 94 3, 310, 64	7	2, 121, 93 3, 267, 87	2 2	30. 01 42. 77		•••••
Sandusky, Ohio Miami, Ohio Detroit, Michigan	3 2 21	1, 370, 57 335, 15	3 1 12	1, 370, 57 18, 47 4, 933, 60	7	2, 255, 59	1 2	316.6 312.5
Huron, Michigan	i	7, 501. 74 1, 502. 88	4	142. 26	15	1, 290, 35	9	70.2
Michigan Michigan Chicago, Illinois	23	764. 27 37. 04	12	399. 71 37. 04	l ii	364. 56		
Milwaukee, Wisconsin	16	2, 626. 70	11	1, 330. 80	4	797. 76	1	498.1
		. 188	1					
Total	175	65, 127. 71	109	49, 080. 21	52	12, 936. 32	14	3, 111, 1
Oswegatchie, New York	1 4	112. 27 153. 86	3	52. 89	i 1	100.97	1	112.2
Oawego, New York. Niagara, New York	6	377. 21	4	157. 61		100.97	2	219. 0
Genesce, New York	2	265. 72	2	265. 72				· · · · · · · · · · · · · · · · · · ·
Buffalo Creek, New York Cuyahoga, Ohio	31 14	6, 927, 75 14, 152, 05	25 12	5, 729. 61 13, 853. 56	2	298.49	6	1, 198. 1
Sandusky, Ohio	3	254, 80 2, 701, 06	1	161. 24	1 3	21, 36 2, 701, 08	1	72.2
Detroit, Michigan	24	15, 633. 14	17	12, 999. 85	7	2, 633, 29	,	
Huron, Michigan	30 5	13, 256. 89 1, 087, 28	16 1	9, 829. 65 8. 50	10	1, 918. 27 1, 078. 78	4	1, 506.9
Michigan, Michigan	23	2, 838, 26 1, 425, 54	16	2, 615. 63 893. 62	7 2	222, 63 531, 92		
Milwaukee, Wisconsin	23	5, 941. 86	8	2, 512. 33	15	3, 429. 53	······································	
		188	2					•
Total	199	51, 748. 66	128	33, 596, 45	66	16, 163. 77	5	1, 988. 4
Oswegatchie, New York	1 3	62. 00 48, 53	1	62.00	3	48. 53	ļ	•••••
Onwego, New York Genesee, New York	1	10. 30	i .	10. 30		***************************************	ļ	
Niagara, New York	3	104. 16	1	28.06	1	12. 10	1	64.0
Buffalo Creek, New YorkErie, Pennsylvania	23 4	3, 294. 44 77. 77	20	1, 814. 71 77, 77	ļ	•••••	. 3	1, 479. 7
Cuyahoga, Ohio Sandusky, Ohio	18	12, 902. 80 178. 98	13	11, 319. 94 140. 66	5 2	1, 582, 86 38, 32		
Detroit, Michigan	23	13. 185. 75	15	8, 750. 07		4, 435. 68		
Huron, Michigan	36 4	11, 953, 09 138, 25	13.	5, 323 . 14 138. 25	22	6, 185. 24	1	444.7
Michigan, Michigan Chicago, Illinois	35 15	3, 501, 55 1, 903, 61	26 11	2, 784. 61 351. 95	9	716. 94 1, 551. 66		
Milwaukee, Wisconsin	28	4, 387, 43	16	2, 794. 99	12	1, 592, 44		
		188	33					
Total	134	24, 552. 25	100	17, 253. 42	31	6, 140. 46	3	1, 156. 3
Oswegatchie, New York	1	15. 88 57. 60	. 1	15. 88 12. 56	2	45. 04		
		57. 00 48. 84	. 1 2	12. 56 35. 64	1	13. 20		
Genesse, New York Buffalo Creek, New York	22	4, 493. 49	21	4, 109. 24			1	334. 2
Cuyahoga, Ohio	8	5, 097. 71	5	1, 234. 46	3	3, 863, 25		·
Sandusky, Ohio	1 4	5. 86 77. 36	4	77. 36	1	5, 86		
Detroit, Michigan Huron, Michigan	11 24	2, 504, 92 7, 418, 94	10 15	2, 454. 54 5, 650. 50	7	50.38 934.32	2	834. 1

65. 88 1, 301. 03 582. 72 2, 847. 64 34. 38 22. 86 1, 205. 56 344. 77 1, 996. 17 34. 38

43, 52 95, 47 237, 95 851, 47

TABLE 31.—SHIPBUILDING FOR THE 10 YEARS, 1880-1889 (GENERAL)—Continued.

1884

	то	TAL.	STEA	MERS.	BAILING	vessels.	ВА	RGES.
CUSTOMS DISTRICTS.	Number.	Tonnage.	Number.	Tonnage.	Number.	Tonnage.	Number.	Tonnage.
Total	110	27, 882. 99	80	20, 205. 69	29	7, 667. 30	1	10.0
Oswegatchie, New York	4 2	191. 19 37. 88	2 2	152. 12 37. 88	1	29. 07	1	10.0
Newego, New York Genesee, New York	1	54. 09 20, 39	1 1	54. 09 20. 39				
Viagara, New York	î	137. 43	i	137. 43				
Buffalo Creek, New York	20 7	4, 279. 33 3, 032. 70	20 5	4, 279, 33 1, 924, 77	2	1, 107. 93		·
andusky, Ohiofiami, Ohio	2 2	1, 958. 42 74. 56	1 2	111. 46 74. 56	1	1, 846. 96	 	
Detroit, Michigan	15	9, 561. 23	10	8, 505. 58	5	1, 055. 65		······································
Iuron, Michigan superior, Michigan dichigan, Michigan	3	6, 373. 32 182. 83	10 2	3, 519. 29 131. 72	9	2, 854. 03 51. 11 137. 52		
filmankee, Wisconsin	18 5	770. 16 382. 54	14 5	632, 64 382, 54	4			1
Duluth, Minnesota	8 2	770. 25 56. 67	3 1	200, 89 41. 00	5 1	569, 36 15, 67		
		188	5					
Total	95	24, 508. 79	64	20, 228. 52	28	3, 729. 74	3	550. 5
Dewegatchie, New York	5 10	408. 41 915. 73	4 6	99. 35 791. 20	4	124. 53	1	309. 0
swego, New York						124.00		<u> </u>
liagara, New York	1	111. 33			1	111. 33	i	j
Buffalo Creek, New York	8 3	2, 307. 30 73. 35	8 3	2, 307. 30 73. 35				
uyahoga, Ohioandusky, Ohio	3	4, 620. 18 109. 46	4 2	4, 620. 18 55. 31	1	54.15		
Miami. Ohio	1 9	97. 89 6, 082. 32	1 5	97. 89 5, 077. 23	3	973. 32	1	131. 7
Iuron, Michigan uperior, Michigan	14	6, 018. 92 6. 44	5	4, 641. 84	9	1, 377. 08 6. 44		
fichigan, Michigan	11 8	1, 359. 14 188. 02	7 8	976. 94 188. 02	4	882. 20		
dilwaukee, Wisconsin Duluth, Minnesota	15 2	2, 063. 89 146. 91	10	1, 262 . 70 37. 21	5	800.69	1	109. 7
		186				<u></u>		<u> </u>
Total	66	18, 254. 85	46	12, 610 78	15	5, 232. 34	5	411.7
Dawegatchie, New York	3 2	148. 44 40. 54	2	50. 07 6. 61	1	33. 93	1	98, 3
Bewego, New York Jenesee, New York	1 2	13. 51 23. 16	1 1	13. 51 14. 46	1	8, 70		
liagara, New York								
Suffalo Creek, New York	10 1	585. 22 13. 78	7 1	355. 16 13. 78			3	230.0
uyahoga, Öhio andusky, Ohio	.5 5	5, 666, 21 219, 64	5 5	5, 666. 21 219. 64				
Detroit, Michigan	. 3	2, 998. 64	1	1, 923. 95	1	991.34	1	83.3
Huron, Michiganuperior, Michigan	9 2	6, 650. 82 308. 35	5 1 7	3, 000. 57 17. 38	1 6	3, 650, 25 290, 97 245, 53	١	
dichigan, Michigan	13 3 6	462. 12 89. 37 1, 023. 43	3 6	216. 59 89. 37 1, 023. 43		240, 05		
Duluth, Minnesota.	1	1, 023. 43		1, 023. 43	1	11.62		
•	-	186	37					
Total	117	52, 454. 42	75	47, 183, 46	34	4, 892. 52	. 8	378. 4
Cape Vincent, New Yorkbawego, New York	2 4	51. 45 124. 74	3	117. 65	2 1	51.45 7.09		ļ
ienešeė, New York Viagara, New York Juffalo Creek, New York	5 8 14	69. 61 857. 95	5 7 12	69, 61 837, 36 4, 961, 88			1 2	20, 5 199, 0
Dunkirk, New York	2	5, 160. 91 58, 88	2	58. 88		· · · · · · · · · · · · · · · · · · ·		199, 0
Frie. Pennsylvania	1 12	13. 40 16, 351. 31	1 10	13. 40 15, 256. 31	2	1, 095. 00		
uyahoga, Öhio beroit, Michigan Iuron, Michigan	11 22	10, 554, 08 13, 69 0, 34	8 11	8, 655, 89 12, 131, 93	8 6	1, 898. 19 1, 899. 59	5	158, 8
uperior, Michigan	22	72. 94		10, 101, 2 0	2	72.94		136, 8
fichigan, Michigan Thicago, Illinois	18 9	1, 605. 29 880. 48	11 1	1, 470. 85 694. 94	7 8	134. 44 185. 54		
Ailwaukee, Wisconsin	7	2, 963. 04	4	2, 914. 76	8	48. 28		

COMPARATIVE STATISTICS—Continued.

TABLE 31.—SHIPBUILDING FOR THE 10 YEARS, 1880-1889 (GENERAL)—Continued.

1888

	T	OTAL.	STEA	MERS.	SAILING	VESSELS.	BAE	GES.
CUSTOMS DISTRICTS.	Number.	Tonnage.	Number.	Tonnage.	Number.	Tonnage.	Number.	Tonnage.
Total	183	96, 314. 73	139	86, 715, 98	42	9, 130, 98	2	467.1
Oswegatchie, New York	3	112, 50	2	73. 03			1	39.4
Cane Vincent, New York	6	130, 28	5	115. 26	1	15, 02		
Oswego, New York	5	346, 59	4	338, 19	1		!	
Niagara New York	7	864. 91	. 7	864. 91			·	
Buffalo Creek, New York	23	8, 049, 95	23	8, 049. 95		• • • • • • • • • • • • • • • • • • •		
Erie, Pennsylvania	3	127. 84	3 '	127. 84	II;			
Cuvahoga, Ohio	23	29, 786, 13	22	28, 527, 51	1	1, 258, 62		
Sandusky, Ohio	5	396, 86	1 3 ;	156, 95	. 2	239, 91		
Miami, Ohio	2	144, 12	. 2	144. 12				
Detroit, Michigan	19	20, 534, 68	17	18, 628. 35	2 .	1, 906, 33		• • • • • • • • • • • • • • • • • • • •
Huron, Michigan	31	22, 275, 08	19	17, 825, 58	12	4, 449, 50	C	
Superior, Michigan	5	856, 95	. 2	27. 60	3	829, 35	l	
Michigan, Michigan	17	2, 579, 85	12	2, 523, 31	5	56, 54		
hicago, Illinois	3	98, 41	2	86, 79	i i	11.62		
Milwaukee, Wisconsin	30	9, 582, 28	16	9, 226, 59	14	355, 69	1	
Duluth, Minnesota	1	428, 30			II		1	428.

1889

Total	179	102, 051, 75	145	93, 706. 73	32	8, 097. 76	2	247.20
Oswegatchie, New York	1	13, 37	1	13, 37	i			
Cape Vincent, New York	4	135. 33	1	12.67	2	49. 30	1 !	73. 3
Oswego, New York	1	51. 47	1	51.47	11	,	[·····	
Niagara, New York	1	141.45	1	141.45				
e .					1			
Buffalo Creek, New York Erie, Pennsylvania	20	5, 239. 78 29. 41	20	5, 239. 78 29. 41	•			• • • • • • • • • • • • • • • • • • • •
Cuyahoga, Ohio	23	31, 205, 32	22	31, 144, 00	i	61, 32		
Sandusky, Ohio	2	49.97	2	49. 97				
Miami, Ohio	5	872. 18	4 ,	859. 24	1	12. 94		• • • • • • • • • • • • • • • • • • • •
Detroit, Michigan	20	22, 425. 51	15	20, 128, 46	. 5 '	2, 297. 05	<u> </u>	
Huron, Michigan	39	25, 459, 33	29	20, 979, 90	9 .	4, 305. 58	1	173.90
Superior, Michigan	3	80.36	2	69. 61	1	10. 75	!	• • • • • • • • • • •
Michigan, Michigan	28	5, 188. 59 29. 58	21	4, 382. 90 28. 58	7	805. 69		• • • • • • • • • • • •
Milwaukee. Wisconsin	28	11. 131. 10	22	10, 575, 92	6	555, 18		

RECAPITULATION.

TC	TOTAL STEAM		MERS. SAILING VESS		VESSELS.	SELS. BARGER	
Number.	Tonnage.	Number.	Tonnage.	Number.	Tonnage.	Number.	Tonnage.
. 1,375	483, 753. 01	949	394, 687. 65	376	79, 417. 95	50	9. 647. 41
. 117 . 175	20, 856. 86 65, 127. 71	63 109	14, 106, 46 49, 080, 21	47 52	5, 426, 76 12, 936, 32	7	1, 323.64 3, 111.16
. 199 . 134 . 110	51, 748, 66 24, 552, 25 27, 882, 99	128 100 80	33, 596, 45 17, 253, 42 20, 205, 69	66 31 29	16, 163, 77 6, 140, 46 7, 667, 30	5 3 . 1	1, 988. 44 1, 156. 37 10. 00
. 95 . 66	24. 508. 79 18. 254. 85	64 46	20, 228. 52 12, 610, 73	28 15	3, 729, 74 5, 232, 34	3 5	550,58 411,78
. 117 183 179	52, 454, 42 96, 314, 73 102, 051, 75	75 139 145	47, 183, 46 86, 715, 98 93, 706, 73	34 42 32	4, 892, 52 9, 130, 98	8 2 2	378.44 467.77 247.26
	Number. 1,375 117 175 199 134 110 95 66 117 183	Number. Tonnage. 1, 375 483, 753. 01 117 20, 856. 86 175 65, 127. 71 199 51, 748. 66 134 24, 552. 25 110 27, 882. 99 95 24. 508. 79 66 18, 254. 85 117 52, 454. 42 183 96, 314. 73	Number. Tonnage. Number. 1, 375 483, 753, 01 949 117 20, 856, 86 63 175 65, 127, 71 109 199 51, 748, 66 128 134 24, 552, 25 100 110 27, 882, 99 80 95 24, 508, 79 64 16 18, 254, 85 46 117 52, 454, 42 75 183 96, 314, 73 139	Number. Tonnage. Number. Tonnage. 1,375 483,753.01 949 394,687.65 117 20,856.86 63 14,106.46 175 65,127.71 109 49,080.21 199 51,748.66 128 33,596.45 134 24,552.25 100 17,253.42 110 27,882.99 80 20,205.69 95 24,508.79 64 20,228.52 66 18,254.85 46 12,610.73 117 52,454.42 75 47,183.46 183 96,314.73 139 86,715.98	Number. Tonnage. Number. Tonnage. Number. 1, 375 483, 753. 01 949 394, 687. 65 376 117 20, 856. 86 63 14, 106. 46 47 175 65, 127. 71 109 49, 080. 21 52 199 51, 748. 66 128 33, 596. 45 66 134 24, 552. 25 100 17, 253. 42 31 110 27, 882. 99 80 20, 205. 69 29 95 24, 508. 79 64 20, 228. 52 28 66 18, 254. 85 46 12, 610. 73 15 117 52, 454. 42 75 47, 183. 46 34 183 96, 314. 73 139 86, 715. 98 42	Number. Tonnage. Number. Tonnage. Number. Tonnage. 1,375 483,753.01 949 394,687.65 376 79,417.95 117 20,856.86 63 14,106.46 47 5,426.76 175 65,127.71 109 49,080.21 52 12,936.32 199 51,748.66 128 33,596.45 66 16,163.77 134 24,552.25 100 17,253.42 31 6,140.46 110 27,882.99 80 20,205.69 29 7,667.30 95 24,508.79 64 20,228.52 28 3,729.74 66 18,254.85 46 12,610.73 15 5,232.34 117 52,454.42 75 47,183.46 34 4,892.52 183 96,314.73 139 86,715.98 42 9,130.98	Number. Tonnage. Number. Tonnage. Number. Tonnage. Number. 1, 375

TABLE 32.—SHIPBUILDING FOR THE 10 YEARS, 1880-1889 (STEAMERS)—NUMBER AND TONNAGE OF ALL STEAMERS BUILT IN THE LAKE AND RIVER CUSTOMS DISTRICTS FOR THE DECADE 1880-1889, TOGETHER WITH DATE SHOWING THE NUMBER AND TONNAGE OF PROPELLER, SIDE-WHEEL, AND STERN-WHEEL STEAMERS BUILT EACH YEAR IN EACH DISTRICT.

		188	0					
CUSTOMS DISTRICTS.	ALL ST	EAMERS.	PROP	ELLEH.	SIDE-	WHEEL.	Stern	WHEEL.
	Number.	Tonnage.	Number.	Tonnage.	Number.	Tonnage.	Number.	Tonnage.
Total	63	14, 106. 46	55	12, 014. 71	3	1, 929. 53	5	162. 2
Oswegatchie, New York. Cape Vincent, New York Oswego, New York Genesee, New York Buffslo Creek, New York	1 2 1 1 7	6. 93 113. 04 238. 41 125. 83 2, 121. 93	1 2 1	6. 93 113. 04 238. 41 2, 121. 93		125. 83		
Cuyahoga, Ohio	7 3	3, 267. 87 1, 370. 57	7 3	3, 267. 87 1, 370. 57				
Miami, Ohio Detroit, Michigan Huron, Michigan	1 12 4	18. 47 4, 933. 60 142. 26	11	3, 338. 67 142. 26	1	1, 594. 93	1.	18. 4
Michigan, Michigan	12 1 11	399. 71 37. 04 1, 330. 80	8 1 10	255. 96 37. 04 1, 122. 03	1	208. 77	4	143.7
		188	31					
Total	109	49, 060, 21	106	47, 848. 79	2	1, 197. 38	1	36.0
Cape Vincent, New York. Oswego, New York. Genesee. New York. Buffalo Creek. New York.	3 4 2 25	52. 89 157. 61 265. 72 5, 729. 61	3 4 1 25	52. 89 157. 61 217. 06 5, 729. 61	1	48. 66		
Cuyahoga, Ohio Sandusky, Ohio Detroit, Michigan Huron, Michigan	12 1 17 16	13, 853, 56 161, 24 12, 999, 85 9, 829, 65	11 1 16 16	13, 817. 52 161. 24 11, 851. 13 9, 829. 65	1	1, 148, 72	1	36.0
Superior, Michigau Michigan, Michigan Chicago, Illinois Miwaukee. Wisconsin	16 4 8	8. 50 2, 615. 63 893. 62 2, 512. 33	1 16 4 8	8, 50 2, 615, 63 893, 62 2, 512, 33				
		188	32 				·	
Total	128	33, 596, 45	108	20, 858. 94	18	10, 846. 81	2	1. 890. 7
Oswegatchie, New York	1 1	62. 00 10. 30 28. 06	1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	62. 00 10. 30 28. 06				
Buffalo Creek, New York	13	1. 814. 71 77. 77 11, 319. 94	19 3	704. 45 31. 67	1 1	1, 110, 26 46, 10 9, 429, 24	2	1, 890, 7
Sandusky, Ohio Detroit, Michigan Huron, Michigan	3 15 13	140, 66 8, 750, 07 5, 323, 14	15 13	8, 750. 07 5, 323. 14	3	140.66		••••••
Superior, Michigan Michigan, Michigan. Chicago, Illinois. Milwankee, Wisconsin	26 11 16	138, 25 2, 784, 61 351, 95 2, 794, 99	26 11 14	138. 25 2, 784. 61 351. 95 2, 674. 44	2	120. 55		
		188	3		·		 	
Total	100	17, 253. 42	96	17, 032. 07	4	221. 35		
Oswegatchie, New York Capo Vincent, New York Oswego, New York Buffalo Creek, New York Cuyahoga, Ohio	1 1	15, 88 12, 50 35, 64 4, 169, 24 1, 234, 46	1 1 2 21 5	15, 88 12, 56 35, 64 4, 169, 24 1, 234, 46	 			
Miami, Ohio Detroit, Michigan Huron, Michigan Superior, Michigan	10 15 1	77, 36 2, 454, 54 5, 650, 50 22, 36	10 15 1	77. 36 2, 454. 54 5, 650. 50 22. 36				
Michigan, Michigan Chicago, Illinois Milwaukee, Wisconsin Duluth, Minnesots	15 9 15 1	1, 205, 56 344, 77 1, 996, 17 34, 38	15 9 11 1	1, 205. 56 344. 77 1, 774. 82 34. 38	4	221. 35		

COMPARATIVE STATISTICS—Continued.

TABLE 32.—SHIPBUILDING FOR THE 10 YEARS, 1880-1889 (STEAMERS)—Continued.

	ALL 81	TEAMERS.	PROP	ELLER.	SIDE-	WHEEL.	STERN	-WHEEL.
CUSTOMS DISTRICTS.	Number.	Tonnage.	Number.	Tonnage.	Number.	Tonnage.	Number.	Tonnage.
Total	80	20, 205. 69	73	17, 206. 94	3	2, 742. 56	4	256.
Oswegatchie, New York Cape Vincent, New York	2	152. 12 37. 88	2	152. 12 37. 88	1			
Oswego, New York	i i	54. 09 20. 39	1	54. 09 20, 39		. 		
Niagara, New York	i	137. 43	i	137. 43	,			
Buffalo Creek, New York	20 5	4, 279. 33 1, 924. 77	19 5	3, 866, 66 1, 924, 77				
Sandusky, Ohio	· 1	111. 46 74. 56	1 2	111. 46 74. 56		'		
Detroit, Michigan	10	8, 505. 58	8	6, 175. 69	2		·····	
Huron, Michigan Superior, Michigan	10 2	3, 519. 29 131. 72	10 2	3, 519, 29 131, 72	<u> </u> "		! !	
Michigan, Michigan Chicago, Illinois	14 5	632, 64 382, 54	11 5	527. 11 382. 54	1			105.
Milwaukee, Wisconsin Duluth, Minnesota	3 1	200. 89 41. 00	2 1	50, 23 41, 00		·	1	150.
		186	5	<u> </u>	<u> </u>	'		
Total	64	20, 228. 52	60	10 271 66	1 .	856, 86	<u> </u>	
		<u> </u>		19, 371. 66		850. 80		
Oswegatchie, New York Cape Vincent, New York	4 6	99, 35 791, 20	4	99. 35 33. 47	2	757.73		
Buffalo Creek, New York Erie, Pennsylvania	8	2, 307. 30 73. 35	8 3	2, 307. 30 73. 35		,	۱	
Cuyahoga, Óhio	4	4. 620. 18	4	4, 620. 18	i	! !		
Sandusky, Ohio	2	55.31 97.89	2 1	55, 31 97, 89		· · · · · · · · · · · · · · · · · · ·		
Detroit, Michigan Huron, Michigan	5 5	5, 077. 23 4, 641. 84	. 5 5	5, 077, 23 4, 641, 84	[::::::::::::::::::::::::::::::::::::::			
Michigan, Michigan	7	976. 94	7	976. 94	ľ	ļ [!]		 ••••••
Chiengo, Illinois Milwaukee, Wisconsin		188. 02	8	188. 02		'		!
Duluth, Minnesota	10 1	1, 262. 70 37. 21	9	1, 200. 78	1	61.92 37.21		
Duluth, Minnesota			9				**	
Total		37. 21	9				**	
Total	1	188	B	1, 200. 78	2	37. 21	1	134
Total Dewegatchie, New York Lape Vincent, New York Dewego, New York Concesse, New York	46 2 1 1	188 12,610.73 50.07	6 43	10,024.40	2	2, 462. 15	1	194
Total Dawegatchie, New York Cape Vincent, New York Dawego, New York Genesse, New York Buffalo Creek, New York	46 2 1 1 1 7	37. 21 188 12, 610. 73 50. 07 6, 61 13, 51	8 43 2 1 1	10, 024. 40 50. 07 6. 61 13.51	2	2, 462. 15	1	194.
Total Dawegatchie, New York Sape Vincent, New York Senense, New York Buffalo Creek, New York Erie, Pennsylvania	46 2 1 1 7 7	37. 21 188 12, 610. 73 50. 07 6. 61 13. 51 14. 46 355. 16 13. 78 5, 666. 21	43 2 1 1	10, 024. 40 50, 07 6, 61 13.51 14. 46 355. 16 13. 78 5, 128. 01	2	2, 462. 15	1	194.
Total Dawegatchie. New York Cape Vincent, New York Dawego, New York Genesse, New York Buffalo Creek, New York Erie, Pennaylvania Cuyahoga, Ohio Sandusky, Ohio Detroit, Michigan.	1 46 2 1 1 1 7 7 1 1	37. 21 1.88 12, 610. 73	6 43 2 1 1 7 7 1	10, 024. 40 50, 07 6, 61 13.51 14. 46 355. 16 13.78 5, 128. 01 95. 46	2	2, 462. 15	1	134
Total Dawegatchie. New York Cape Vincent, New York Oswego, New York Buffalo Creek, New York Erie, Pennaylvania. Cuyahoga, Ohio Sanduaky, Ohio Detroit, Michigan Huron, Michigan	1 46 2 1 1 1 7 7 1 5 5 5 1 5 5	12, 610, 73 10, 610, 73 50, 07 6, 61 13, 51 14, 46 355, 16 13, 78 5, 666, 21 5, 19, 64 1, 923, 95 3, 000, 57	6 43 2 1 1 7 7 1	10, 024. 40 50, 07 6, 61 13-51 14-46 355. 16 13. 78 5, 128. 01 95. 46	2	2, 462, 15 2, 462, 15 538, 20 1, 923, 95	1	134.
Total Dawegatchie, New York Cape Vincent, New York Oawego, New York Buffalo Creek, New York Erie, Pennaylvania. Cuyahoga, Ohio. Sanduaky, Obio. Detroit, Michigan. Huron, Michigan. Michigan, Michigan. Michigan, Michigan	1 46 2 1 1 7 7 1 5 5 1 5 1 7 7	37. 21 188 12, 610. 73 50. 07 6. 61 13. 51 14. 46 355. 16 13. 78 5, 666. 21 219. 64 1, 923. 95 3, 000. 57 17. 38 216. 59	63 43 2 1 1 7 1 4 4 4 7 7	10, 024, 40 50, 07 6, 61 13, 51 14, 46 355, 16 13, 78 5, 128, 01 95, 46 3, 000, 57 17, 38 216, 59	2	2, 462. 15 2, 462. 15 538. 20 1, 923. 95	1	134.
Total Dawegatchie, New York Dape Vincent, New York Dawego, New York Genesee, New York Buffalo Creek, New York Erie, Pennsylvania Cuyahoga, Ohio Sandusky, Ohio Detroit, Michigan Huron, Michigan Superior, Michigan Michigan, Michigan Clinenge, Illinoia	46 2 1 1 1 7 1 5 5 1 5	37. 21 1.68 12, 610. 73 50. 07 6. 61 13. 51 14. 46 355. 16 13. 78 5, 666. 21 219. 64 1, 923. 95 3, 000. 57 17. 38	63 43 2 1 1 7 1 4 4 5 1	10, 024. 40 50. 07 6. 61 13.51 14. 46 355. 16 13. 78 5, 128. 01 95. 46 3. 000. 57	2 1 1	2, 462. 15 2, 462. 15 538. 20 1, 923. 95	1 = 1	134.
Total Dawegatchie, New York Jape Vincent, New York Jawego, New York Jenesee, New York Benesee, New York Berie, Pennsylvania Juyahoga, Ohio Detroit, Michigan Huron, Michigan Buperior, Michigan Jilinoja Jilinoja	46 2 1 1 1,7 1,5 5,5 1,5 1,7 3	12, 610, 73 10, 610, 73 50, 07 6, 61 13, 51 14, 46 355, 16 13, 78 5, 666, 12 219, 64 1, 923, 95 3, 000, 57 17, 38 216, 59 89, 37 1, 023, 43	63 43 2 1 1 7 1 4 4 4 5 1 7 3 6	10, 024. 40 50, 07 6, 61 13.51 14. 46 355. 16 13. 78 5, 128. 01 95. 46 3. 000. 57 17. 38 216. 59 89. 37	2 1 1	2, 462, 15 2, 462, 15 538, 20 1, 923, 95	1 = 1	134.
Total Dawegatchie. New York Cape Vincent, New York Dawego, New York Genesse, New York Buffalo Creek, New York Erie, Pennaylvania. Cuyahoga, Ohio Sandusky, Ohio Detroit, Michigan Huron, Michigan Superior, Michigan Michigan, Michigan Chiengo, Illinois Milwaukee, Wisconsin	1 46 2 1 1 1 7 7 1 5 5 1 5 5 1 7 3 6 6	12, 610, 73 12, 610, 73 50, 07 6, 61 13, 51 14, 46 355, 16 13, 78 5, 666, 21 1, 923, 95 3, 000, 57 17, 38 216, 59 89, 37 1, 023, 43	63 43 2 1 1 7 1 4 4 4 7 7 7 7 7 7 7 8 7 8 8 7 8 7 8 7 8	1, 200. 78 10, 024. 40 50. 07	2	2, 462. 15 2, 462. 15 538. 20 1, 923. 95	1	134.
Total Dewegatchie, New York Sape Vincent, New York Sewego, New York Genesse, New York Buffalo Creek, New York Erie, Pennsylvania Cuyahoga, Ohio Sandusky, Ohio Detroit, Michigan Huron, Michigan Michigan, Michigan Chiengo, Illinois Milwaukee, Wisconsin	46 2 1 1 1,7 1,5 5,5 1,5 1,7 3	12, 610, 73 10, 610, 73 50, 07 6, 61 13, 51 14, 46 355, 16 13, 78 5, 666, 12 219, 64 1, 923, 95 3, 000, 57 17, 38 216, 59 89, 37 1, 023, 43	63 43 2 1 1 7 1 4 4 4 5 1 7 3 6	1, 200. 78 10, 024. 40 50. 07 6. 61 13.51 14. 46 355. 16 13. 78 5, 128. 01 95. 46 3. 000. 57 17. 38 216. 59 89. 37 1, 023. 43	2 1 1	37. 21 2, 462. 15 538. 20 1, 923. 95	1	134
Total Dewegatchie, New York Jape Vincent, New York Jawego, New York Jenesee, New York Benesee, New York Buffalo Creek, New York Erie, Pennsylvania Duyahoga, Ohio Detroit, Michigan Huron, Michigan Buperior, Michigan Jilinoia Milwankee, Wisconsin Total Total	1 46 2 1 1 1 7 7 1 5 5 1 5 5 1 7 3 3 6 6	12, 610, 73 12, 610, 73 50, 07 6, 61 13, 51 14, 46 355, 16 13, 78 5, 666, 21 1, 923, 95 3, 000, 57 17, 38 216, 59 89, 37 1, 023, 43	63 43 2 1 1 7 1 4 4 5 1 7 3 6	1, 200. 78 10, 024. 40 50. 07	1 1 1 1	37. 21 2, 462. 15 538. 20 1, 923. 95	1	134.
Total Dawegatchie, New York Cape Vincent, New York Dawego, New York Benesse, New York Buffalo Creek, New York Erie, Pennsylvania. Cuyahoga, Ohio Sandusky, Ohio Detroit, Michigan Huron, Michigan Superior, Michigan Michigan, Michigan Chiengo, Illinois Milwaukee, Wisconsin	1 46 2 1 1 1 7 7 1 5 5 1 7 3 6 6	12, 610. 73 10, 610. 73 50. 07 6. 61 13. 51 14. 46 355. 16 13. 78 5, 666. 21 219. 64 1, 923. 95 3, 000. 57 17. 38 216. 59 89. 37 1. 023. 43	63 43 21 11 17 14 44 55 17 36 67 74 31	1, 200. 78 10, 024. 40 50, 07 6, 61 13.51 14. 46 355. 16 13. 78 5, 128. 01 95. 46 3. 000. 57 17. 38 216. 59 89. 37 1, 023. 43 47, 166. 07	1	37. 21 2, 462. 15 538. 20 1, 923. 95	1	134.
Total Dawegatchie, New York Cape Vincent, New York Dawego, New York Jenesee, New York Jenesee, New York Buffalo Creek, New York Erie, Pennaylvania Cuyahoga, Ohio Detroit, Michigan Huron, Michigan Huron, Michigan Michigan, Michigan Michigan, Michigan Michigan, Michigan Milwaukee, Wisconsin Total Dawego, New York Buffalo Creek, New York Dunkirk, New York	1 46 2 1 1 1 7 7 1 5 5 1 5 7 7 8 5 7	37. 21 188 12, 610. 73 50. 07 6. 61 13. 51 14. 46 355. 16 13. 78 5, 666. 21 219. 64 1, 923. 95 3, 000. 57 17. 38 216. 59 89. 37 1. 023. 43 188 47, 183. 46	63 43 2 1 1 7 1 4 4 4 5 1 7 3 6 7 74 3 5 7	1, 200. 78 10, 024. 40 50. 07 6. 61 13.51 14. 46 355. 16 13. 78 5, 128. 01 95. 46 3. 000. 57 17. 38 216. 59 89. 37 1, 023. 43 47, 166. 07		37. 21 2, 462. 15 538. 20 1, 923. 95	1	134.
Total Dawegatchie, New York Cape Vincent, New York Dawego, New York Buffalo Creek, New York Erie, Pennsylvania Cuyahoga, Ohio Sandusky, Ohio Detroit, Michigan Huron, Michigan Superior, Michigan Michigan, Michigan Michigan, Michigan Michigan, Michigan Michigan, Michigan Michigan, Michigan Michigan, Michigan Chiengo, Illinois Milwaukee, Wisconsin Total. Dawego, New York Sonessee, New York Sungara, New York Sungara, New York Sungara, New York Concessee, New York Dunkirk, New York Cive, Pennsylvania	1 46 2 1 1 1 7 7 1 5 5 1 5 5 1 5 5 1 5 5 1 5 5 1 5 5 1 7 3 6 6 6 6 6 6 6 6 6 6 6 6 6 6 6 6 6 6	12, 610. 73 50. 07 6. 61 13. 51 14. 46 355. 16 13. 78 5, 666. 21 219. 64 1, 923. 95 3, 000. 57 17. 38 216. 59 80. 37 1. 023. 43 198 47, 183. 46 117. 65 69. 61 857. 36 4, 961. 88	63 43 2 1 1 1 7 1 4 4 4 5 1 7 3 6 7 11	1, 200. 78 10, 024. 40 50. 07 6. 61 13.51 14. 46 355. 16 13. 78 5, 128. 01 95. 46 3. 000. 57 17. 38 216. 59 89. 37 1, 023. 43 47, 166. 07 117. 65 69. 61 837. 36 4, 944. 49		37. 21 2, 462. 15 538. 20 1, 923. 95	1	134.
Total Dawegatchie, New York Cape Vincent, New York Dawego, New York Benesee, New York Buffalo Creek, New York Erie, Pennsylvania Chyahoga, Ohio Detroit, Michigan Huron, Michigan Chicago, Hilmois Milwankee, Wisconsin Total Total Dawego, New York Buffalo Creek, New York Dunkirk, New York Chyahoga, Ohio Detroit, Michigan Chicago, Hilmois Milwankee, Wisconsin	75 75 75 75 75 75 75 76 77 12	12, 610. 73 10, 610. 73 50. 07 6, 61 13. 51 14. 46 355. 16 13. 78 5, 666. 21 219. 64 1, 923. 95 3, 000. 57 17. 38 216. 59 80. 37 1. 023. 43 188 47, 183. 46 117. 65 69. 61 8:7. 36 4. 961. 88 58. 88 13. 40	8 43 2 1 1 1 7 1 4 4 7 7 1 7 3 6 7 11 2 1	10, 024. 40 50. 07 6. 61 13.51 14. 46 355. 16 13. 78 5, 128. 01 95. 46 3. 000. 57 17. 38 216. 59 89. 37 1, 023. 43 47, 166. 07 17. 65 69. 61 837. 36 4, 944. 49 58. 88 13. 40	1 1 1	37. 21 2, 462. 15 538. 20 1, 923. 95	1	134.
Total Dawegatchie, New York Cape Vincent, New York Dawego, New York Buffalo Creek, New York Erie, Pennsylvania Cuyahoga, Ohio Sandusky, Ohio Detroit, Michigan Huron, Michigan Superior, Michigan Michigan, Michigan Michigan, Michigan Michigan, Michigan Michigan, Michigan Michigan, Michigan Michigan, Michigan Chiengo, Illinois Milwaukee, Wisconsin Total. Dawego, New York Sonessee, New York Sungara, New York Sungara, New York Sungara, New York Concessee, New York Dunkirk, New York Cive, Pennsylvania	1 46 2 1 1 1 7 7 1 5 5 1 7 3 6 6 7 8 2 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	12, 610, 73 50, 07 6, 61 13, 51 14, 46 355, 16 13, 78 5, 666, 21 219, 64 1, 923, 95 3, 000, 57 17, 38 216, 59 89, 37 1, 023, 43 198 47, 183, 46 117, 65 69, 61 857, 36 4, 961, 88 58, 88 13, 40 15, 256, 31	3 5 7 11 10 10 10 10 10 10 10 10 10 10 10 10	1, 200. 78 10, 024. 40 50, 07 6, 61 13.51 14. 46 355. 16 13. 78 5, 128. 01 95. 46 3. 000. 57 17. 38 216. 59 89. 37 1, 023. 43 47, 166. 07 117. 65 69. 61 837. 36 4, 944. 49 58. 88 13. 40 15. 256. 31		2, 462. 15 2, 462. 15 538. 20 1, 923. 95	1	134.

TABLE 32.—SHIPBUILDING FOR THE 10 YEARS, 1880-1889 (STEAMERS)—Continued.

1888

·	ALL ST	EAMERS.	PROP	ELLER.	SIDE-	WHEEL.	STERN-WHEEL.	
CUSTOMS DISTRICTS.	Number.	Tonnage.	Number.	Tonnage.	Number.	Tonnage.	Number.	Tonnage.
Total	139	86, 715. 98	136	86, 564. 69	2	114.97	1	36. 32
Oswegatchie, New York Cape Vincent, New York Oswego, New York Ningara, New York Buffalo Creek, New York.	. 5 4	73. 03 115. 26 338. 19 864. 91 8, 049. 95	2 5 4 7 23	73. 03 115. 26 338. 19 884. 91 3, 049. 95				·
Rrie, Pennsylvania. Cuyahoga, Ohio Sandusky, Ohio Miami, Ohio Detroit, Michigan.	2 2 3	127. 84 28, 527. 51 156. 95 144. 12 18, 628. 35	3 22 2 2 2 17	127. 84 28, 527. 51 120. 63 144. 12 18, 628. 35			1	36. 32
Huron, Michigau Superior, Michigan Michigan, Michigan Chicago, Illinois Milwaukee, Wisconsin	2 12	17, 825, 58 27, 60 2, 523, 31 66, 79 9, 226, 59	19 2 11 1 16	17, 825, 58 27, 60 2, 435, 03 60, 10 9, 226, 59	1 1			

1889

Total	145	93, 706. 73	138	89, 188. 68	6	4, 328. 09	. 1	189. 96
Oswegatchie, New York	1	13, 37	1	13, 37			1	
Cape Vincent. New York		12, 67	!! i !	12.67			,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,	
Oswego, New York	i	51.47	· ;	51.47	11			
Niagara, New York	i	141.45	: :	141.45	li .	1	lı .	
Buffalo Creek, New York	20		20					
Builbio Creek, New 10rk	20	5, 239. 78	20	5, 239. 78			i	•••••
					1		li	
Erie, Pennsylvania		29. 41	2	29. 41	\i			
Cuyahoga, Ohio	22	31, 144. 00	21	29, 632. 88	1	1, 511. 12		
Sandusky, Ohio	2	49. 97	' 2	49.97	II		l	
Miami. Ohio	4	859. 24	. 3	300, 65	1	558. 59		
Detroit, Michigan	15	20, 128, 46	13	18, 036, 56	1 5	2, 091, 90		
Desirate michigan		20, 120. 40		10, 000.00	lı -	2,001.00		1
Huron, Michigan	- 29	20, 979, 90	28	20, 908, 95		70. 95		1
Superior, Michigan		69. 61	20	69. 61	1			,
			Z		11		,	
Michigan, Michigan		4, 382, 90	21	4, 382. 90				
Chicago, Illinois		28.58	2	28. 58			! 	
Milwaukee, Wisconsin,	22	10, 575, 92	. 20	10, 290, 43	!! 1	95, 53	1	189. 96
			11		d -	1	li	1

RECAPITULATION.

	ALL STEAMERS.		PROPELLER.		SIDE-WHEEL.		STERN-WHEEL	
YEARS.	Number.	Tonnage.	Number.	Tonnage.	Number.	Tonnage.	Number.	Tonnage.
Total for the 10 years	949	394, 687. 65	889	367, 274. 95	45	24, 717. 09	15	2, 695, 61
1880	63 109 128 100	14, 106, 46 49, 060, 21 33, 596, 45 17, 253, 42	55 106 108 96	12. 014. 71 47. 846. 79 20, 858, 94 17, 032. 07	3 2 18	1, 929. 53 1, 197. 38 10, 846. 81 221. 35	5 1 2	162. 22 36. 04 1, 890. 70
1884	80	20, 205. 69	73	17, 206. 94	3	2, 742. 56	4	256. 19
1885 1886 1887	46	20, 228. 52 12, 610. 73 47, 183. 46	60 43 74	19, 371, 66 10, 024, 40 47, 166, 07	2 1	856. 86 2, 462. 15 17. 39	1	124. 18
1888	139 145	86, 715, 98 93, 706, 73	136 138	86, 564. 69 89, 188. 6 8	2 6	114. 97 4, 328. 09	1 1	36. 35 189. 90

CONGRESSIONAL APPROPRIATIONS.

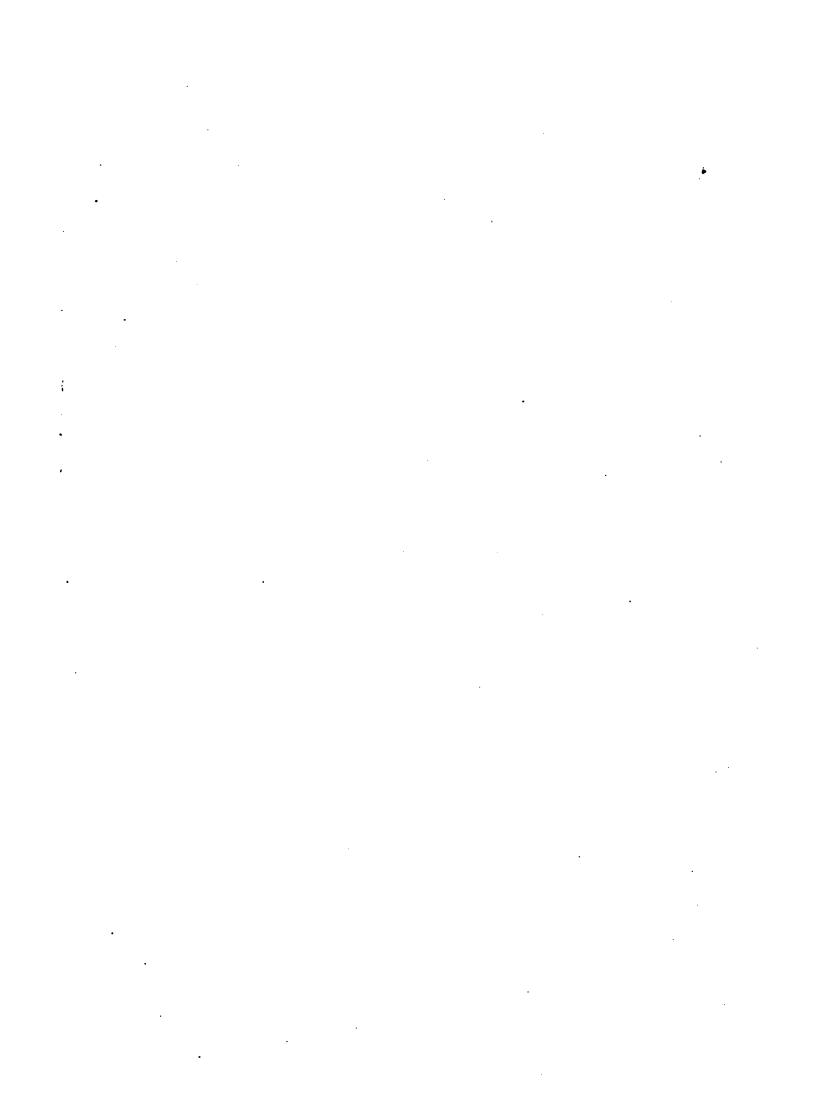
TABLE 33.—APPROPRIATIONS BY DETAILED LOCALITIES—CONGRESSIONAL APPROPRIATIONS FOR THE SURVEY, IMPROVEMENT, AND MAINTENANCE OF THE HARBORS OF THE GREAT LAKES, AND OF THE RIVERS FLOWING INTO THEM, FROM THE EARLIEST DATE OF APPROPRIATION TO 1890, INCLUSIVE, GIVEN BY DETAILS OF LOCALITY AND TIME.

LOCALITIES.	Date of earliest appropriations.	Appropriations up to and including 1879.	Appropriations from 1880 to 1889, inclusive.	Appropriations by act of Congress, September, 1890.	Total appropriations up to date.
Total		\$23, 700, 565	\$12, 999, 165	\$4, 213, 245	\$40, 912, 975
ake Superior	. 1858	3, 467, 555	3, 738, 500	2, 027, 245	9, 233, 3 ₀ 0
Agate bay, Minnesota	. 1886		37, 500	25, 000	62, 500
Ashland harbor, Wisconsin Duluth harbor, Minnesota	. 1886 . 1871	261, 050	82, 500 291, 250	60, 000 100, 000	142, 500 652, 300
Eagle harbor, Michigan Grand Marais harbor, Minnesota	. 1866	97, 000 10, 000	85,000	22, 350	97. 000 117. 350
Grand Marais harbor of refuge, Michigan Marquette harbor, Michigan	. 1860	10, 000 297, 230	291, 250 48, 000	50, 000 40, 000	351. 250 385, 230
Ontonagon harbor, Michigan	. 1867 . 1886	202, 600	95, 500 10, 000	10, 000 350, 000	30 6, 100 36 0, 000
St. Marys river and canal, Michigan Superior and St. Louis bays, Wisconsin	.] 1858	2, 215, 692 373, 983	2, 625, 000	1, 300, 000	6, 140, 691
Superior and St. Louis bays, wisconsin	. 1613	313, 863	172, 500	69, 895	616. 378
akes Huron and St. Clair	1852	1, 934, 310	1, 511, 890	245, 500	3, 691, 700
Alpena harbor (Thunder bay), Michigan	. 1876	4, 500 05, 750	15,000	15, 500	35.000
Au Sable river and harbor, Michigan Belle river, Michigan	.' 1881 '	95, 750	18, 000 14, 000		113, 750 14, 090
Black river, Michigan	. 1888	•••••	10,000	35, 000	45.000
Cheboygan harbor, Michigan. Clinton river, Michigan.	1871	91.000	57, 000	10.000	148, 000
Clinton harbor, Michigan	. 1882	11, 500	30, 000 3, 000	10, 000	51, 500 3, 000
Detroit river, Michigan	. 1874	175, 000	528,000	•••••	- 703, 000
Harbor of refuge at Sand Beach, Michigan	1871 1852	700, 000 653, 560	420,000 111,140	30, 000 80, 000	1, 150, 000
Saginaw river, Michigan	. 1866	195 000	298, 750	75,000	844, 709 568, 750
Sebawatny harbor, Michigan	1875	8,000	7, 000		15. Oct
ake Michigan	1826	6, 440, 843	3, 917, 400	893, 000	11, 251, 243
Ahnapee harbor, Wisconsin.	1871	103, 000	62, 000	6,000	171, 000
Black Lake harbor, Michigan Calumet harbor and river, Illinois	. 1870	217, 615 277, 600	47, 000 135, 400	10, 000 70, 000	274, 515 482, 446
Cedar river (Green Bay), Michigan Charlevoix harbor, Michigan	1882	31,000	30, 000 62 , 500	9, 000	30.000 102.5.0
Chicago harbor, Illinois	1	1, 134, 005	870. 000	100, 000	2, 104, 003
Fox river (mouth of), Wisconsin	1867	40, 000	· · · · · · · · · · · · · · · · · · ·		40, 000
Frankfort harbor, Michigan Grand Haven harbor, Michigan	1852	213, 660 303, 866	59, 600 245, 600	10, 000 75, 000	273, 660 623, 866
Grand river, Michigan	1881	• • • • • • • • • • • • • • • • • • • •	50, 0. 0		50.000
Green Bay harbor, Wisconsin	1866 1844	229, 550 194, 307	58, 020 33, 500	10, 000 17, 000	297, 350 244, 807
Kewaunee harbor, Wisconsin	1881		55, 000	20. 000	75, 000
Lake Winnebago, Wisconsiu. La Plaisance bay, Michigan.	1839 1826	500 19, 803			500 19. 803
Ludington harbor, Michigan	1867	196, 185	156, 250		352, 435
Manistee harlor Michigan	1867	183, 000	65, 000 6, 000	50.000	29F, (0) 6, (6)
Manistique harbor, Michigan Manitowoc harbor, Wisconsin	1852	240, 820	59, 000	8, 000	307. (29)
Menominee harbor, Wisconsin	! i	153, 000	59, 000	54, 000	266, 000
Michigan city (outer harbor), Indiana	1836 1880	679, 889	304, 375 76, 875	50, 000 7, 500	1, 034, 264 84, 375
Milwaukee hay, Wisconsin. Milwaukee harbor, Wisconsin	1881	908 007	415, 000	86. 000	501. OV
Muskegon harbor, Michigan	1836 1867	335, 987 140, 000	38. 000 130, 000	50,000	373, 967 820, 00 9
Neenah river, Wisconsin	1839	2, 500		100, 000	102, 506
New Buffalo harbor, Michigan Oconto harbor, Wisconsin	1852 1881	78, 000	5, 000 68, 000		83, UHF 68, 60F
Pensaukee harbor, Wiscousin	1882 1867	168, 820	15, 000 57, 000	8, 000	15, 600 233, 830
	1	100, 020	31,000	·	
Petoskey harbor, Michigan Port Wash Ligton, Wiscousin	1870	100, 500	84, 000	15, 000 3, 000	15, 000 187, 500
Portage Lake harbor of refuge. Michigan Racine harbor, Wisconsin.	1879 1844	10, 000 201, 285	82, 500 46, 000	8, 000 17, 500	100, 500 264, 785
St. Josephs harbor, Michigan	1836	280, 113	67. 000	20, 000	367, 113
St. Josephs river (survey). Michigan	1888 .	100 400	2, 500	1, 000	3,500
Saugatuck harbor, Michigan Sheboygan harbor, Wisconsin	1868 1852	105, 439 183, 449	35, 000 120, 000	15, 000	140, 439 31%, 449
South Haven harbor, Michigan	1867	149, 500	42, 500	15. 000	207. 0.0
Sturgeon bay. Wisconsin	1873	110, 000 140, 000	55, 000 60, 500	3, 000	108, 000
Two Rivers harbor, Wisconsin	1871			3,000	203, 500

CONGRESSIONAL APPROPRIATIONS—Continued.

TABLE 33.—APPROPRIATIONS BY DETAILED LOCALITIES—Continued.

LOCALITIES.	Date of earliest appropriations.	Appropriations up to and including 1879.	Appropriations from 1880 to 1889, inclusive.	Appropriations by act of Congress, September, 1890.	Total appropriations up to date.
Lake Erie	1823	\$5. 362, 336	\$2,712,500	\$804, 500	\$8, 879, 336
Ashtabula harbor, Ohio	1826	290, 711	137, 500	40, 000	468, 211
Black River harbor, Ohio	1879	175, 205	45, 000	12, 000	232, 205
Ruffula harbor New York	1826	1, 410, 495	742, 500	300,000	2, 452, 995
Cattarangus creek. New York	1836	57, 410		·····	57, 410
Cleveland harbor, Ohio	1825	654. 882	793, 750	75, 000	1, 523, 632
Conneaut harbor, Ohio	1829	106, 629	6,000	·	112, 629
Cunningham creek, Ohio		19, 781	· · · · · · · · · · · · · · · · · · ·		19, 781
Dunkirk harbor, New York.	1827	430, 946	55, 000	20, 000	505, 946
Erie harbor, Pennsylvania	1823 1825	616, 367	235, 500	40, 000 30, 000	891, 867
Grand River harbor (Fairport), Ohio	1825	229, 124	61, 750	30,000	320, 87
Huron river and harbor, Ohio	1826	98, 274	25,000	16,000	139, 274
Monroe harbor, Michigan	1835	209, 515	11,000	5, 000	225, 518
Port Clinton harbor, Ohio	1872	40, 000	23,000	3,000	66, 000
Portland harbor, New York	1836	56, 616			56. 610
Rocky River harbor, Ohio	1872	35, 000	4,000		39, 000
Rouge River, Michigan	1888		10,000	10, 000	20, 000
Sandusky City harbor, Ohio.	1826	222, 980	97, 500	45, 000	365, 480
Sandusky City harbor, Ohio	1867	30, 000	21, 500	1,500	53, 000
Toledo harbor. Ohio	1866	564, 700	432, 500	205, 000	1, 202, 200
Vermilion river, Ohio	1836	113, 701	11,000	2,000	126, 701
Lake Ontario	1826	2, 581, 855	895, 875	115, 000	3, 592, 73
Black river (Sacketts harbor), New York	1836	42, 400			42, 400
Charlotte harbor, New York	1828	310, 578	133, 750	25, 000	409, 326
Great Sodus bay, New York	1829	343, 772	83, 875	10,000	437, 64
Little Sodus bay, New York	1852	194, 442	103, 500	13,000	310, 94
Oak Orchard harbor, New York	1836	173, 000	27, 000	5, 000	205, 00
Olcott harbor, New York	1867	115, 000	18,000	30,000	163, 00
Oswego harbor, New York	1826	1, 264, 363	471, 250	30, 000	1, 765, 613
Port Öntario harbor, New York Pultneyville harbor, New York	1836	1, 264, 363 50, 000			50,00
Pultneyville harbor, New York	1870	62, 000	9,000	2, 000	73, 000
Sacketts harbor, New York	1826	6, 000	9,000		15,00
Sandy creek, New York	1828	300			300
Wilson harbor, New York	1875	20,000	40, 500		60, 500
St. Lawrence river	1852	140, 006	58, 500	53, 000	251, 500
Grass river, New York	1882		3,000	6, 000	9, 000
Ogdensburg harbor, New York Sister islands, New York	1852	110, 006	50,000	42, 000	202, 00
Sister islands, New York	1890			5,000	5, 000
Waddington harbor, New York	1873	30, 000	5, 500		35, 500
Niagara river	1829	52, 098	106, 500	75, 000	233, 59
Risck Rock harlor New York	1829	52, 098			52, 096
Black Rock harbor, New York Tonawanda harbor, New York	1881		106, 500	75, 000	181, 500
General appropriations	1836	3, 721, 562	58, 000		3, 779, 56
General repairs of harbor	1844	270, 000	<u> </u>		270, 000
Surveys	1866	175, 000			175, 000
Surveys Survey steamer	1854	50, 000			50,000
Chart-making	1849	130, 000	***************************************	.	130, 00
Hydrographic surveys Construction of dredging machines	1841 1836	2, 973, 879 122, 683	58, 000		3, 031, 870
Constitution of algering machines	1990	122, 063		. ¹	122, 68



TRANSPORTATION ON LAKE CHAMPLAIN.

The statistics of transportation on Lake Champlain were but partially given in the fourth volume of the Tenth Census, and to have included the statistics of this sheet of water in the report on the Great Lakes and St. Lawrence river for the Eleventh Census would have stood in the way of preparing any comparative statistics for 1880 and 1890. It was therefore decided to make a separate report for Lake Champlain. No record was made either of early commercial operations on Lake Champlain except the statement that 1 of the first 4 steamers built on all the northern lakes was a craft of 298.57 tons, which was constructed on Lake Champlain about the year 1818.

All that it is necessary to say concerning Lake Champlain in the way of physical geography is that it forms the boundary line for its whole length between the states of New York and Vermont, and is 100 miles long from its head of navigation at Whitehall, in Washington county, New York, to its farthest northward extension where it joins the boundary line between Quebec and the states of New York and Vermont. Its area, however, is not as great as its length would seem to indicate, for while its northern part incloses several small islands and is nearly 14 miles wide, more than half of its entire length is not more than 5 miles wide and in some places is less than 1 mile wide. Its greatest ascertained depth is 600 feet, and its surface is 93 feet higher than the level of the sea. Its surplus waters are discharged into the St. Lawrence by the river Richelieu, while on the east it receives the waters of the Missisquoi, the Lamoille, and the Winooski rivers, and Otter creek; from the south those of the Poultney; the contributing streams on the west being the Chazy, the Saranac, and the Au Sable rivers.

It may be added that besides being an important channel of navigation in itself it is connected with the Hudson river by the Champlain canal, which extends from Whitehall to Albany.

PLAN OF THE TABLES.

The plan adopted for the presentation of the statistical results of the investigation by the Eleventh Census into the industry of transportation on Lake Champlain, with some necessary modifications, is the same that was followed in considering the Great Lakes and St. Lawrence river, the numbers and the titles of the 17 tables which have been prepared in this instance being as follows:

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Equipment, occupation, and construction:
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Table 1-Equipment in general.

Table 2—Equipment of fleets, by classes.

Table 3-Percentages of tonnage and valuation.

Table 4-Construction, by localities.

Table 5-Construction, by materials.

Traffic operations:

Table 6-Freight movement in general.

Table 7-Freight movement, by ports and commodities.

Earnings and expense accounts:

Table 8-Financial account in general.

Table 9-Expense account in detail.

Table 10—Employés and wages.

Table 11-Fuel account.

Comparative statistics:

Table 12-Fleets for the 10 years 1880-1889.

Table 13—Vessel tonnage for the 10 years 1880-1889.

Table 14—Tonnage fluctuations for the 10 years 1880–1889.

Table 15—Shipbuilding for the 10 years 1880-1889 (general). Table 16—Shipbuilding for the 10 years 1880-1889 (steamers).

Congressional appropriations:

Table 17—Appropriations, by localities.

The preceding list shows clearly the scheme on which the tabulation of the Lake Champlain statistics has been carried out, while the following synopsis will more explicitly show what the tables contain:

EQUIPMENT.

Table 1, "Equipment in general", shows the number, tonnage, and value of all the steamers and sailing vessels of over 5 tons burden owned on Lake Champlain in 1889, entered by ports.

Table 2, entitled "Equipment of fleets, by classes", divides the entries of Table 1, separating the total number, tonnage, and value of all steamers and sailing vessels into classes, retaining the separate entries by ports. The steamers are divided into 4 classes, namely, side-wheel passenger steamers, propellers carrying both passengers and freight, tugs, and all other classes, while the sailing vessels are divided into 2 classes, schooners and sloops.

Table 3, entitled "Percentages of tonnage and valuation", gives the number, gross and net tonnage, estimated carrying capacity, valuation, and value per gross ton of all vessels owned on Lake Champlain, the entire lake fleet being divided into 8 classes of occupation, and the percentages of both the tonnage and valuation of each of these classes to the lake totals being given.

CONSTRUCTION.

Table 4, "Construction, by localities", gives the number, tonnage, value, average value per ton, and the average tonnage of all vessels owned on Lake Champlain per material of construction, given by separate entries for each port.

Table 5, entitled "Construction, by materials", gives the number, tonnage, value, average value per ton, and average tonnage of the same craft, but grouped according to material of construction, in contradistinction to the preceding table, in which the grouping is done by ports.

TRAFFIC.

Table 6, "Freight movement in general", contains the receipts, shipments, and excess of one movement over the other, and the total movement of the freight moved on Lake Champlain with the commodities divided into the same comprehensive classes used in the report on the Great Lakes and St. Lawrence river, that is:

Class I-Products of agriculture.

Class II-Products of mines and quarries.

Class III-Other products (such as animal products and lumber).

Class IV-Manufactures, miscellaneous merchaudise, and other commodities.

There has been worked out for this table also the percentage of each commodity to the total traffic, whether of receipts, shipments, or combined movements.

Table 7, "Freight movements, by ports and commodities", presents the figures of commodity movement given in the preceding table, allotted to the 8 principal trading points of Lake Champlain.

EARNINGS AND EXPENSE ACCOUNTS.

Table 8, entitled "Financial account in general", is really a balance sheet of the industry of transportation on Lake Champlain, showing as it does the gross earnings, expenses, and net earnings of the operating lake fleet of steamers and sailing vessels, entered for each port of registration.

Table 9, "Expense account in detail", itemizes the sum of gross expenses given in the preceding table under the various heads of port charges, wages, provisions, current repairs, fuel (for the steamers), commissions, insurance, taxes, and office expenses, with two columns for such other running and shore expenses as have not been specified.

Table 10, "Employés and wages", is an analysis of the monthly wages paid on the operating vessels belonging to each port, to all grades of employés from captains to captains' boys, and from first mates to chambermaids, together with the number of persons making up the ordinary crews required as the complement of all operating craft, the number of persons receiving whole or partial employment in the operation of these vessels, the total wages paid out each month, and the average rate of wages paid.

Table 11, entitled "Fuel account" applies, of course, only to operating steamers. These steamers are grouped under the heads of (1) passenger, passenger and freight, and freight steamers, (2) towboats, and (3) miscellaneous. For each of these classes and for each port the number of tons of coal consumed is set down, together with the cost of material.

COMPARATIVE STATISTICS.

Table 12, "Fleets for the 10 years 1880-1889", gives the number and tounage of all steamers and sailing vessels registered in the customs districts of Lake Champlain for the decade in question; this table as well as the 4 succeeding having been compiled from information furnished this office by the Commissioner of Navigation.

In Table 13 these figures of number and tonnage are made the base for a calculation of averages which are worked out and given for steamers and sailing vessels for the 10 years, while Table 14 gives the fluctuations from the annual average number and the annual average tonnage of all steamers and sailing vessels registered in the customs districts.

Tables 15 and 16 are records of shipbuilding for the decennial period in question, the first giving the number and tonnage of all steamers and sailing vessels built during the 7 years of activity in the decade, and the second furnishing the data for the 4 years in which steamers were built, to show the number and tonnage of all vessels of this kind so built, arranged according to their methods of propulsion—that is, whether propellers or side-wheel steamers.

CONGRESSIONAL APPROPRIATIONS.

Table 17, which concludes the series, gives the amounts appropriated by Congress for the survey, improvement, and maintenance of the harbors of Lake Champlain and of the rivers flowing into it, from the earliest date of appropriation down to and including that of the act of Congress of September, 1890. These sums, so far as the grouping of periods is concerned, are given, first, up to and including 1879; second, from 1880 to 1889, inclusive; third, the appropriations of 1890, and fourth, the total appropriations from first to last.

LOCALITIES.

Before taking up the consideration of what the tables show it will be necessary to explain the various localities mentioned in the different statements. The two places entered on Tables 1, 2, 4, 5, 8, 9, 10, and 11, Burlington, Vermont, and Plattsburg, New York, are the ports of register of the two customs districts of Vermont and Champlain, which latter localities are given in Tables 12, 13, 14, 15, and 16, the former term having been used by the Census agents in collecting their information, and the latter being the term employed in the reports of the Commissioner of Navigation, the two being practically the same. In Table 7 the list of the principal trading points on the lake is given, the traffic returns being a matter entirely outside of custom-house registration, and the list being as follows:

Rouses Point, New York. Plattsburg, New York. Ticonderoga, New York. Whitehall, New York. Gordons Landing, Vermont. Burlington, Vermont. Otter Creek, Vermont. Swanton, Vermont.

WHAT THE TABLES SHOW.

In the text of the Great Lakes and St. Lawrence river the next step taken after the consideration of "the plan of the tables" was to inquire what the tables show, and no better plan could be adopted for the present article.

VALUES AND TONNAGE.

The information given in Table 1 shows that in the year ended December 31, 1889, the floating equipment of Lake Champlain, exclusive of barges and all other unrigged craft, numbered 47 vessels, having a tonnage of 6,061 tons and a value of \$361,300. So far as numbers go the shipping was about equally distributed both between steamers and sailing vessels, and between the 2 ports of registration of Burlington and Plattsburg, the steamers numbering 22 and the sailing vessels 25. The figures of values and tonnage, however, are quite different, for while the tonnage of the steamers was 4,136 tons, that of the sailing vessels was 1,925; and while the value of the 25 sailing vessels was \$36,800, that of the steamers amounted to \$324,500.

From Tables 2 and 3, which divide the lake fleet into classes indicative of occupation or rig, it is seen that of the 22 steamers 5 were employed as side-wheel passenger carriers, having a gross tonnage of 3,011 tons and a value of \$215,000; 4 were propellers carrying both passengers and freight and had a tonnage of 76 tons and a value of \$10,000; 6 were tugs, with a gross tonnage of 652 tons and a value of \$61,000; there was 1 ferryboat of 5 tons and a value of \$1,500, and 3 pleasure yachts with a tonnage of 74 tons and a value of \$19,000; leaving 3 unclassified steamers of 318 tons aggregate tonnage and \$18,000 value. Of the 25 sailing vessels 22 are seen to be schooners and 3 sloops, the tonnage and value of the schooners being 1,747 tons and \$32,700, and the tonnage and value of the sloops being 178 tons and \$4,100.

The percentages given in Table 3 furnish several items of interest, the principal one, and the only one that need be noted here, being the preponderance in proportionate tonnage and value of the side-wheel passenger steamers, the 5 steamers so employed representing 49.68 or nearly 50 per cent of the total tonnage on the lake, both sailing vessels and steamers, and 59.51 per cent, or more than one-half of the value, of the Lake Champlain fleet.

MATERIALS OF CONSTRUCTION.

Looking at Tables 4 and 5, which show the relative use of iron and wood as materials of construction, it is seen that of the 47 craft reported on only 6 were of iron, their tonnage being 1,404 tons and their value \$109,000, leaving 41 wooden vessels with a tonnage of 4,657 tons and a value of \$252,300. When it comes to a question of averages, however, it is found that the average value per ton of the iron vessels was \$78 as against \$54 per ton of wooden vessels; while the average tonnage of the iron vessels was 234, and that of the wooden vessels 114.

The statistics of freight traffic which are found in Tables 6 and 7 show that during 1889 the total movement by the vessels employed in such operations was 1,760,549 tons; this amount, it should be understood, being the aggregate of the receipts and shipments at the various trading points on the lake—those trading points which were listed in a preceding paragraph.

PORT TRAFFIC AND CARGO TONNAGE.

In considering the traffic on the Great Lakes and St. Lawrence river it was stated to be "a problem in accurate statistics whether the aggregate of receipts and shipments does not show a larger movement than the actual returns of cargo tounage would do", and a table was prepared (Table 16 in that report) in which there was set down the result of each commodity movement, either receipts or shipments, whichever happened to be the larger, and using this single amount to represent the cargo tonnage. By applying the same rule to the commerce of Lake Champlain it is found that the cargo tounage amounted to 1,065,368 tons.

PORTS AND COMMODITIES.

In Table 7, which illustrates the freight movement by ports and commodities, the relative importance of these ports is fairly shown. Both as a shipping and receiving point, Whitehall, New York, easily leads, its shipments amounting to 540,000 tons and its receipts to 600,000 tons, a total movement of 1,140,000 tons. Ronses Point, New York, comes next, its receipts being 207,500 tons and its shipments 113,843 tons, making a total of 321,343 tons. The port of third importance is Otter Creek, Vermont, with shipments of 23,000 tons and receipts of 74,000 tons, a total of 97,000 tons. Other than the 3 ports mentioned, Plattsburg, New York, is the only port for which any returns for shipments were made. Table 7 also shows in a fair degree the principal commodities in whose traffic the different ports were engaged, although the reports showed far too much willingness on the part of those making them out to lump the traffic figures under the head of "Unclassified". Taking the 4 principal specified items of coal, iron ore, iron (pig and bloom), and lumber it is found that Plattsburg received the bulk of the coal, 7,875 tons, and that it also shipped iron ore to the amount of 27,135 tons. The business of Rouses Point seems to have principally consisted in the receipts of lumber, its figures standing at 197,500 tons out of a total of 277,223 tons of fumber received at all ports on the lake. Swanton, Vermont, is the only port making returns for the receipt of iron, the amount being 2,125 tons.

The returns of passenger traffic on Lake Champlain were quite unsatisfactory, the alleged reason being that nearly all the passengers were of the excursion class, of whom no record was kept, and indeed the only reports of passenger traffic received were those of 87,139 regular passengers, made by the steamer owners of Burlington, Vermont.

EARNINGS AND EXPENSES.

In Table 8 are given the figures which show how the business of transportation by water paid on Lake Champlain during 1889. The total figures indicate that the gross earnings of the operating mercantile fleet amounted to \$172,311, the expenses to \$141,599, leaving the net earnings at \$30,712. Out of these amounts the steamers made as gross earnings \$160,830 and paid out \$132,380, leaving a balance of \$28,450; while the sailing vessels made as gross earnings \$11,481 and paid out \$9,219, leaving the net earnings at \$2,262.

In Table 9 the total amount of expenses, \$141,599 given in Table 8, is reduced to the principal items making it up. The largest item was wages, that expense amounting to \$42,239; next to which came fuel (for the steamers), \$40,827. Provisions amounted to \$16,028; the current repairs to \$13,465; the office expenses to \$13,445; taxes to \$2,475; insurance to \$2,094; port charges to \$921; commissions to \$60; the balance of \$10,045 being set down to unspecified running and shore expenses.

In much the same way that the grand total of expenses given in Table 8 was divided into a number of items in Table 9, so the total of wages which formed one of the leading items in Table 9 is analyzed in Table 10, which treats of the monthly wages paid to the employés of those vessels which were in operation during 1889. The apparent contradiction between the statements made in Table 1, which sets the floating equipment of Lake Champlain at 47 vessels, and that made in Table 10, which sets the number of chief officers at 30, is due to the fact that in the one case the fleet referred to includes all registered craft whether in operation or not, while in the other case the report was only made for those vessels which were engaged in commercial operations.

Of these employés the steamer list embraces captains, first and second mates, clerks, first and second engineers, wheelmen, lookouts, watchmen, cooks and assistant cooks, seamen, deck hands, firemen, stewards, waiters, boys, and chambermaids; while the sailing vessel list includes captains, first mates, seamen, and cooks.

The number of each class of employés for the lake fleet is given for both steamers and sailing vessels in a comprehensive total, from which the subjoined summaries, with their calculated averages, are drawn:

STATEMENT SHOWING THE NUMBER OF ALL EMPLOYES CONSTITUTING THE ORDINARY CREWS OF THE OPERATING STEAMERS AND SAILING VESSELS ON LAKE CHAMPLAIN, TOGETHER WITH THEIR AGGREGATE AND AVERAGE MONTHLY WAGES.

STEAM	ERS.			STEAMERS—Continued.							
EMPLOYÉS.	Number employed.	Aggregate of wages for 1 month.	Average monthly wages.	emplayés.	Number employed.	Aggregate of wages for 1 month.	Average monthly wages.				
Total	173	\$6, 769	\$39.13	Firemen	28	873	31. 18				
Captains	17	1, 603	94, 29	Stewards	-	248	62.00				
First mates				Waiters	16	240	15. 00				
		553	46. 25	Boys	1	15	15.00				
Second mates	•	75	25. 00	Chambermaids	4	60	15. 00				
Clerks	_	110	. 55.00			<u> </u>					
First engineers		1,030	60. 59	•							
Second engineers	12	478	39. 83	SAILING V	ESSELS.						
Wheelmen	6	253	42. 17								
Lookouts	-	16	16. 00	Total	35	1.002	28, 63				
Watchmen	3	60	20.00								
Cooks	15	439	29. 27	Captains	13	580	44. 62				
Assistant cooks	2	36	18. 00	First mates	5	120	24.00				
Seamen	6.	156	26. 00	Seamen	11	210	19.09				
Deck hands	24	522	21, 75	Cooks	6	92	15. 33				

Should a comparison be made between the wages paid on Lake Champlain and those paid on the Great Lakes and St. Lawrence river it will be seen that the average in every case is considerably lower on the smaller sheet of water, the general average being \$48.79 in the other locality against \$37.36 on Lake Champlain, the detailed averages being as follows:

STATEMENT SHOWING THE AVERAGE MONTHLY WAGES PAID TO ALL CLASSES OF EMPLOYES ON THE OPERATING STEAMERS AND SAILING VESSELS ON LAKE CHAMPLAIN, COMPARED WITH THOSE PAID ON THE GREAT LAKES AND ST. LAWRENCE RIVER.

STEAMERS.			STEAMERS—Continued.							
employés.	Average monthly wages on Lake Cham- plain.	Average monthly wages on the Great Lakes and St. Lawrence river.	employés.	Average monthly wages on Lake-Cham- plain.	Average monthly wages on the Great Lakes and St. Law-rence river.					
Average monthly wages of all steamer employés.	\$39. 13	\$49.73	Firemen	31. 18	36. 51					
			Waiters	62. 00 15. 00	59, 43 20, 44					
Captains		109.15								
First mates	46. 25	71.56	Boys		18. 30					
Second mates	25.00	58.00	Chambermaids	15.00	22.39					
Clerks	55.00	60. 25								
First engineers	60. 59	87.34	•							
Second engineers	39. 83	62, 24	SAILING VESSELS.							
Wheelmen	42. 17	36.01								
Lookouts	16.00	33, 77	Average monthly wages of all sailing	\$28. 63	\$46,70					
Watchmen	20, 00	32.97	vessel employés.							
Cooks	29, 27	51.54	Captains	44. 62	75, 18					
Assistant cooks	18.00	20.98	First mates	24.00	52.14					
Scamen	1	35. 96	Seamen	19.09	38, 39					
Deck hands		23. 70	Cooks	15. 33	35, 68					

Another interesting total of Table 10 shows that while the number of persons making up the ordinary crews of the operating vessels on Lake Champlain in 1889 was 208, there were 269 persons to whom whole or partial employment was given during the same year, and that the total wages paid per working month was \$7,771.

FUEL ACCOUNT.

In Table 11 there will be found set down the amounts of coal burned by all the operating mercantile steamers during 1889, together with the cost of the fuel. As was seen when considering Table 9 the cost of coal figures as an item of the expense account to the extent of \$40,827, and in the present table it will be found that the amount burned was 10,910 tons; that the passenger and freight steamers burned 5,787 tons, costing \$20,831; that the towboats burned 3,400 tons, costing \$13,922, and that the miscellaneous steam craft consumed 1,723 tons of coal, costing \$6,074.

COMPARATIVE STATISTICS.

As was stated when considering the "Plan of the tables", the comparative statistics found in Tables 12 to 16, inclusive, have been gathered from the reports of the Bureau of Navigation, and before proceeding to consider them it will be well to point out that the difference between the fleet of 1889 reported by the Census Office and that reported by the Commissioner of Navigation, is due to the fact that in the Commissioner's figures there are included certain unrigged craft which have not been given a place in the census report, and to a somewhat different method of classification. The totals of the Commissioner's report are 53 craft, with a tonnage of 6,490.85 tons, made up of 19 steamers, with a tonnage of 4,102.38 tons, and 34 sailing vessels, with a tonnage of 2,388.47 tons, while the total of Table 1 places the Champlain fleet at 47 craft, with a tonnage of 6,061 tons, made up of 22 steamers, with a tonnage of 4,136 tons, and 25 sailing vessels, with a tonnage of 1,925 tons. The yearly details of Table 12 form an interesting record, but the pith of the subject is presented in the recapitulation for the 10 years. No clearer presentation of the gradual change in the class of the craft in use on the lake can be made than is found in this recapitulation, for while the number of the vessels composing the fleet has dropped from 63 in 1880 to 53 in 1889, the tonnage has increased from 5,247.86 to 6,490.85 tons. The explanation of the increased tomage is found in the statistics of the two columns treating respectively of steamers and sailing vessels, for here it is seen that while the sailing vessels have dropped from 44, with a tonnage of 2,667.62 tons, in 1880 to 34, with a tonnage of 2,388.47 tons, in 1889, the steamers of 1880, which numbered 19, had a tonnage of 2,580.24 tons, while the steamers in 1889, with the same number, 19, had a tonnage of 4,102.38 tons.

CHANGES IN EQUIPMENT.

In Table 13 these changes in number and tonnage are further treated of, the statement showing that in 1880 the average tonnage of the steamers of the Vermont district was 219 tons, while in 1889 it had risen to 345 tons and that the tonnage of the steamers of the Champlain district had risen from 87 tons in 1880 to 100 tons in 1889. Further, that while the average tonnage of the sailing vessels of the Champlain district remained stationary at 64 tons, that of the sailing vessels of the Vermont district had risen from 55 tons to 85 tons; the average tonnage of the combined fleet rising from 71 tons for the Champlain district in 1880 to 75 tons in 1889, and from 103 tons for the Vermont district in 1880 to 208 tons in 1889.

Table 14 is but a continuation, or rather an elaboration of Table 13; presenting as it does the years in which the number and tonnage of the lake fleet ran the highest above and the lowest below the average standard. The great changes, as has been said, are observable in the district of Vermont. Here the annual average number of vessels registered was 23, while the annual average tonnage was 3,416 tons; the year of highest registered number was 1881, when the number was 30, while the year of highest registered tonnage was 1888, when the tonnage was 4,169 tons. Conversely it is seen that the year of lowest registered number was 1889 with 19 registered vessels, while the year of lowest registered tonnage was 1880, when the tonnage was 2,469 tons. The year in which the number of registrations was closest to the average was 1883, when the number was 23, and the year in which the registered tonnage was closest to the average was 1882, when it was 3,402 tons. The fluctuation of number, by the by, was 11 and that of tonnage was 1,700 tons. The annual average number of registrations for the district of Champlain was 36, the fluctuation being 9; while the annual average registered tonnage was 2,645 tons, with a fluctuation of 614 tons.

SHIPBUILDING.

In Table 15, which gives the Commissioner's report of the shipbuilding in the two districts of Champlain and Vermont for the 10 years 1880-1889, additional facts are found explaining the extensive fluctuations in the registration of the Vermont district. From this table the following summary can be collated:

STATEMENT SHOWING THE NUMBER AND TONNAGE OF STEAMERS AND SAILING VESSELS BUILT IN THE TWO DISTRICTS OF CHAMPLAIN AND VERMONT DURING THE 10 YEARS 1880-1889.

	STEA	MERS.	SAILING	VESSELS.	TOTAL.		
DISTRICTS.	Number.	Tonnage.	Number.	Tonnage.	Number.	Tonnage.	
Both districts	6	1, 484. 20	7	546, 66	13	2, 030. 86	
Champlain	2	199. 93	5	415.30	7	615, 23	
Vermont	4	1, 284, 27	2	131.36	; 6 İ	1, 415. 63	

Table 16 is devoted to an analysis of steamer building, with especial reference to the methods of propulsion adopted. The whole number of steamers built in the 10 years was 6, with a tonnage of 1,484.20, and of these, as the recapitulation shows, 4 were propellers, with a tonnage of 243.12 tons, and 2 were side-wheel steamers, with a tonnage of 1,241.08 tons. No stern-wheel steamers were built.

CONGRESSIONAL APPROPRIATIONS.

The earliest appropriation made by the government for the improvement of Lake Champlain was in 1836, when improvements were effected at Burlington, Plattsburg, and Whitehall harbors, and when a general survey of the lake was made, the appropriations for that year amounting to \$620,352. Since that time other localities have been improved and other amounts have been appropriated, the total amount up to and including the act of Congress of September, 1890, being \$1,123,352, as is shown in Table 17, while the subjoined descriptive list shows what has been done under the appropriations:

BUBLINGTON HARBOR.—The first project for the improvement of this harbor was probably adopted in 1836. Modifications of the original plan have been made from time to time so as to afford adequate protection to the increasing commercial and shipping interests of the harbor. The improvements now embrace a breakwater of good dimensions and a well protected entrance.

GORDONS LANDING.—The object of the improvement here has been the construction of a breakwater out to the 16-foot curve for the protection of the landing.

GREAT CHAZY RIVER.—The appropriation made by the Congressional act of 1890 was for the purpose of improving this river from the mouth, on Lake Champlain, to Champlain village.

OTTER CREEK.—The project of this improvement adopted in 1872 has been the formation of a channel from Vergennes to Lake Champlain of good navigable width, and with 8 feet of water.

PLATTSBURG HARBOR.—The improvements here consisted of a breakwater running out some 1,200 feet, built for the protection of the steamboat docks.

ROUSES POINT.—Like nearly all the improvements on Lake Champlain, that at this place has consisted of the erection of a curved breakwater 2,000 feet long.

Survey.—This survey was made in 1836 and 1838, the principal localities being the Narrows and the channel between North and South Hero islands.

SWANTON HARBOR.—Swanton harbor has been really formed by the construction of protecting breakwaters inclosing a portion of the lake.

TICONDERGGA RIVER.—The project of this improvement, adopted in 1881, was the formation of a channel of navigable width and a least depth of 8 feet at low water between the falls of Ticonderoga village and Lake Champlain, a distance of 2 miles.

WHITEHALL HARBOR.—Little has been done in this vicinity except a survey.

EQUIPMENT, OCCUPATION, AND CONSTRUCTION.

TABLE 1.—EQUIPMENT OF FLEETS IN GENERAL—NUMBER, TONNAGE, AND VALUE OF ALL STEAMERS AND SAILING VESSELS FORMING THE LAKE_FLEET, AND CREDITED TO THEIR PORTS OF REGISTRATION.

	то	TAL OF ALL	CRAFT.		STRAMER	8.	SAILING VESSELS.			
PORTS.	Number.	Gross tonnage.	Valuation.	Number.	Gross tonnage.	Valuation.	Number.	Gross tonnage.	Valuation.	
Total for lake	47	G, 061	\$361,300	22	4, 136	\$324,500	25	1, 925	\$36, 80 0	
Burlington, Vermont	21 26	3, 880 2, 181	254, 100 107, 200	12 10	3. 128 1, 008	240, 500 84, 000	9 16	752 1, 173	13. 600 23. 200	

TABLE 2.—EQUIPMENT OF FLEETS BY CLASSES—NUMBER, TONNAGE, AND VALUE OF THE LAKE STEAMERS AND SAILING VESSELS REPORTED ON IN THE PRECEDING TABLE, BUT DIVIDED INTO CLASSES INDICATIVE OF OCCUPATION AND RIG.

									STEAM	MERS, SAILING VESSELS.											
PORTS.	TO	TAL EQU	IPMENT.		Side-w passer		bo	pellers th pas and fre	carrying sengers sight.		Tug	s.	AI	l other	classes.		Schoon	iers.		Sloop	s.
de _	No.	Gross ton- nage.	Valua- tion.	No.	Gross ton- nage.	Valua- tion.	No.	Gross ton- nage.	Valua- tion.	No.	Gross ton- nage.	Valua- tion.	No.	Gross ton- nage.	Valua- tion.	No.	Gross ton- nage.	Valua- tion.	No.	Gross ton- nage.	Valua- tion.
Total	47	6, 061	\$361, 300	5	3,011	\$215,000	4	76	\$10,000	6	652	\$61,000	7	397	\$38, 500	22	1,747	\$32, 700	а	178	\$4. 100
Burlington, Ver- mont. Plattsburg, New York.	21 26	3, 880 2, 181	254, 100 107, 200	5	3,011	215, 000	3	38 38	5, 000 5, 000	6	652	31,000	4 3	79 318	20, 500 18, 000	8 14	709 1,038	12, 900 19, 800	1 2	43 135	704 3, 400

TABLE 3.—PERCENTAGES OF TONNAGE AND VALUATION—NUMBER, GROSS AND NET TONNAGE, ESTIMATED CARRYING CAPACITY, VALUATION, AND VALUE PER GROSS TON OF ALL STEAMERS AND SAILING VESSELS, ARRANGED BY PERCENTAGES OF TONNAGE AND VALUATION APPLIED TO ALL CRAFT, GROUPED BY OCCUPATIONS.

		ļ i.	TONN		,			
CLASSES OF VESSELS.	Number.	Gross.	Percentage of total ton- nage on lake.	Net.	Estimated carrying capacity.	Commercial.	Percentage of valuation on lake.	Per ton gross.
All classes	47	6, 061	100.00	4, 724	7, 475	\$361, 300	100.00	\$60
Steamers: Side-wheel passenger Propellers carrying both passengers and freight Tugs. Ferry Pleasure yachts. Unclassified steam vessels.	1	3, 011 76 652 5 74 318	49. 68 1. 25 10. 76 0. 08 1. 22 5. 25	2, 344 39 325 5 46 179	3, 449 19 358 2 24 86	215, 000 10, 000 61, 000 1, 500 19, 000 18, 000	59. 51 2. 77 16. 88 0. 42 5. 26 4. 98	71 132 94 300 257 57
Sailing vessels: Schooners	22 3	1, 7 47 178	28. 82 2. 94	1, 616 170	3, 9 20 323	82,700 4,100	9. 05 1. 13	19 2 3

TABLE 4.—CONSTRUCTION BY LOCALITIES—MATERIAL, NUMBER, TONNAGE, VALUE IN GENERAL, VALUE PER TON, AND AVERAGE TONNAGE OF ALL THE LAKE FLEET ENTERED FOR EACH PORT.

LAKES AND PORTS.	Material.	Number.	Gross tounsge.	Valuation.	Average valuation per ton.	Average tonnage.
Lake Champlain.		47	6, 061	\$3 61, 300	## 0	129
Burlington, Vermont	Iron	1 20	743 3, 137 661 1, 520	55, 000 199, 100 54, 000 53, 200	74 63 82 35	743 157 132 72

TRANSPORTATION ON LAKE CHAMPLAIN.

EQUIPMENT, OCCUPATION, AND CONSTRUCTION—Continued.

TABLE 5.—CONSTRUCTION BY MATERIALS—MATERIAL, NUMBER, TONNAGE, GENERAL VALUE AND AVERAGES OF VALUE, AND TONNAGE OF ALL THE LAKE FLEET ENTERED FOR EACH PORT, GROUPED TO SHOW THE TOTALS FOR EACH MATERIAL OF CONSTRUCTION, WHETHER IRON OR WOOD.

					
LAKES AND PORTS.	Number.	Gross tonnage.	Valuation.	Average valuation per ton.	Average tonnage.
Total Lake Champlain	47	6, 061	\$361, 300	\$60	129
IRON.					
Lake Champlain	6	1,404	109, 000	78	234
Burlington, Vermont	1 5	743 661	55, 000 54, 000	74 82	743 132
WOOD.					
Lake Champlain	41	4, 657	252, 300	54	114
Burlington, Vermont	20 21	3, 137 1, 520	199, 100 53, 200	63 35	157 72

TRAFFIC OPERATIONS.

TABLE 6.—FREIGHT MOVEMENT IN GENERAL—RECEIPTS, SHIPMENTS, TOTAL MOVEMENT, EXCESS OF RECEIPTS OVER SHIPMENTS, AND EXCESS OF SHIPMENTS OVER RECEIPTS OF THE FREIGHT MOVEMENT, CLASSED BY PRINCIPAL PRODUCTS, TOGETHER WITH PERCENTAGES OF TRAFFIC APPLIED TO THE COMMODITIES.

	RECEI	rts.	внірмі	ENTS.	TOTAL MOV	EMENT.	Excess	Excess
COMMODITIES.	Amount in tons.	Per cent of total traffic.	Amount in tons.	Per cent of total traffic.	Amount in tons.	Per cent of total traffic.	receipts over shipments. (Tons.)	shipments over receipts. (Tons.)
Total	1, 047, 858	100.00	712, 691		1, 760, 549	100. 00		
Class I.—Products of agriculture		! !		' 		'		
Wheat	. 			·		; ;•••••		· · · · · · · · · · · · · · · · · · ·
Corn Other grains Mill products All other farm products							1	
Class II.—Products of mines and quarries	9, 625	0. 92	27, 135	3. 81	36, 760	2.09	·	17, 51
Coal			27, 135	3, 81	9, 625 27, 135	1.54	9, 625	27, 13
Salt Other products of mines and quarries								
Class III.—Other products	277, 223	26. 46	8, 60 3	1.21	285, 886	16. 24	268, 560	
Animal products	277, 223	26. 46	ж, 663	1. 21	285, 886	16. 24	268, 560	
Class IV. — Manufactures, miscellaneous merchan- disc, and other commodities.	761, 010	72.62	676, 893	94. 98	1, 437, 903	81.67	84, 117	

TABLE 7.—FREIGHT MOVEMENT BY PORTS AND COMMODITIES—RECEIPTS, SHIPMENTS, AND TOTAL MOVEMENT OF THE LAKE FREIGHT, GROUPED ACCORDING TO AN EXTENDED LIST OF COMMODITIES, AND ALLOTTED TO THE EIGHT PRINCIPAL PORTS OF TRADE.

LAKES AND PORTS.	Total.		OF MINES	Lumber.	Manufac- tures of	Miscellaneou merchandisc
LABBO AND PURIS.	rotar.	Coal and coke.	Iron ore.	Lumper.	iron, pig and bloom.	and other commodit.es
Total receipts and shipments	1. 760, 549	9, 625	27, 135	285, 886	2, 125	1, 435. 77
ke Champlain: Rouses Point, New York	321, 343 1, 500			197, 500		123, 84
Plattsburg, New York Burlington, Vermont Otter Creek, Vermont	43, 848 79, 823 97, 000		27. 135	79, 723		1,50 17 10 97 , 00
Ticonderoga, New York Whitehall, New York Swanton, Vermont	65, 000 1, 140, 000 12, 035		''			6 5, 0. 1, 140, 0. 8, 10
Receipts	1, 047, 858	9, 625		277, 223	2, 125	756. 8
Rouses Point, New York Gordons Landing, Vermont	207, 500 1, 500					10,00
Plattsburg, New York Burlington, Vermont Otter Creek, Vermont		7, 875		79, 723		1: 10 74. (C
Ticonderoga, New York Whitchall, New York Swanton, Vermont	65, 000 600, 000 12, 035	1,750				65, 00 640, 00 8 16
Shipments	712, 091	ļ	27, 135	8, 663		676. 8
Rouses Point, New York	113, 843					113. 8
Plattsburg, New York	35, 848		27, 135		!	
Otter Creek, Vermont. Ticonderoga, New York						23.0
Whitehall, New York	540, 000			;		540. 0

EARNINGS AND EXPENSE ACCOUNTS.

TABLE S.—FINANCIAL ACCOUNT IN GENERAL—GROSS EARNINGS, EXPENSES, AND NET EARNINGS OF ALL THE OPERATING LAKE CRAFT, GIVEN BY STEAMERS AND SAILING VESSELS, AND ENTERED FOR EACH PORT OF REGISTER.

STEAMERS AND SAILING VESSELS.

LAKES AND PORTS.	Gross earnings.	Expenses.	Net earnings.
Lake Champlain	\$172, 311	\$141, 599	\$30,712
Burlington, Vermont Plattsburg, New York.	93, 971 78, 340	75. 302 66, 297	18, 609 12, 043
STEAMERS.			
Lake Champlain	160, 830	132, 380	28, 450
Burlington, Vermont	89, 860 70, 970	72, 602 59, 778	17, 258 11, 192
SAILING VESSELS.			
Lake Champlain	11, 481	9, 219	2, 262
Burlington, Vermont Plattsburg, New York	4, 111 7, 370	2, 700 6, 519	1, 411 851

TABLE 9.—EXPENSE ACCOUNT IN DETAIL—ITEMIZED EXPENSE ACCOUNT OF ALL THE OPERATING LAKE CRAFT, GIVEN BY STEAMERS AND SAILING VESSELS, SUBDIVIDED INTO THE VARIOUS ITEMS CONSTITUTING THE RUNNING AND SHORE EXPENSES, AND ENTERED FOR EACH PORT OF REGISTER.

STEAMERS AND SAILING VESSELS.

LAKE AND PORTS.	Total expenses.	Port charges.	Wages.	Provisions.	Current repairs.	Fuel for the steamers.	Other running expenses.	Commis- sion.	Insurance.	Taxes.	Office expenses.	Other shore expenses.
Lake Champlain	\$141,599	\$9 21	\$42, 239	\$16.028	\$ 13, 46 5	\$40, 827	\$8, 938	\$6 0	\$2,094	\$2,475	\$ 13, 445	\$1, 107
Burlington, Vermont Plattsburg, New York	75, 302 66, 297	7 914	25, 737 16, 502	12, 283 3, 745	7, 072 6, 393	20, 313 20, 514	4, 158 4, 780	60	1, 476 618	1, 596 879	2, 000 11, 445	660 447
				s	TEAMERS							
Lake Champlain	132, 380	467	36, 619	14, 524	12, 346	40, 827	8, 651		2, 054	2, 450	13, 445	997
Burlington, Vermont Plattsburg, New York	72, 602 59, 778	7	23, 922 12, 69 7	11, 798 2, 726	6, 868 5, 478	20, 318 20, 514	4, 012 4, 639		1, 436 618	1, 586 864	2, 000 11, 445	660 337

SAILING VESSELS.

Lake Champlain	9, 219	454	5, 620	1,504	1, 119	 287	60	40	25	 110
Burlington, Vermont Plattsburg, New York	2, 700 6, 519	454	1, 815 3, 805	485 1,019	204 915	1/1	60	40	10 15	110

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STATISTICS OF TRANSPORTATION.

EARNINGS AND EXPENSE ACCOUNTS—Continued.

TABLE 10.—EMPLOYES AND WAGES-MONTHLY WAGES PAID TO ALL EMPLOYES OF THE OPERATING LAKE CRAFT ENTERED FOR STEAMERS AND SAILING VESSELS, AND ALLOTTED TO EACH PORT OF REGISTER.

STEAMERS AND SAILING VESSELS.

	C	APTAINS.	PI	EST MAT	28.		COND ATES.	,	LERKS.		first Gin ee r		SECO!		WHE	ELMEN.	ю	okouts.	WA:	rchmen.	C	оокs.
LAKE AND PORTS.	No.	Monthly wages.	No	Mont wage	hly 8.	No.	Month- ly wages.	No.	Monthly wages.	No.	Montl wage		Moi wa	othly ges.	To.	Monthly wages.	No.	Month ly wages	No.	Month- ly wages.	No.	Month ly wages.
Lake Champlain	30	\$2, 183	17	\$1	375	3	\$ 75	2	\$110	17	\$1,0	30 12	i	\$478	6	\$253	1	\$16	. 3	\$60	21	\$531
Burlington, Ver- mont.	16	1, 317	10	,	110	3	75	2	110	12	7	80 7		278	5	203	1	16	3	60	14	396
Plattsburg, New York.	14	866	7	1	265	••••	· · · · · · · · · · ·			. 5	2	50 5		200	1	50					7	133
		BISTANT OOKS.	SE.	MRN.		DECK		TREM	EN. STE	WARD	s. w	AITERS.		BOYS.	C	HAMBER- MAIDS.			Numb perso	ns To	tal ges	Aver-
LAKE AND PORTS.	No.	Month- ly wages.	No.	Month- ly wages.	No.	1	nth- y ges.	. 1	onth- y No. ges.	Mont ly wage	No.	Month ly wages.	No	Month ly wages	N	o. Month	in	aking dinary	emplo men durin year	y po t p	id er ith.	rate of wages per month.
Lake Champlain	2	\$36	17	\$ 366	24	*	522 28		873 4	\$24	8 16	\$240	1	\$15		\$60		208	2	69 \$7	, 771	\$37.30
Burlington, Ver-	2	36	9	221	19		387 18		569 4	24	8 16	240	1	15	4	60		146	1	75 5	, 423	37. 14
mont. Plattsburg, New York.			9	145	5		135 10		304				·		.		-	62		94 2	, 348	37. 87

STEAMERS.

	C.	APTAINS.	r	RST MAT	ES.		COND ATES.		CLERKS.	EN	FIRST IGINEE	RS. E	SECO		WH	RELMEN.	LO	OKOUT	s. WA	TCHNEN		COOKS.
LAKE AND PORTS.	No.	Monthly wages.	N	Mont wage		No.	Month ly wages.	No.	Month! wages		Mont wag			onthly ages.	No.	Mouthly wages.	No	Mont ly wage	No.	Month ly wages	No.	Month- ly wages.
Lake Champlain	17	\$1,603	1	2 \$	555	3	\$ 75	2	\$11	0 17	\$1,	030 12		\$478	6	\$25 3	1	\$1	6 3	\$6 0	15	\$439
Burlington, Ver-	12	1, 157	-	3	355	3	75	2	11	0 12		780 7		278	5	203	1	1	6 3	60	10	332
mont. Plattsburg, New York.	5	446		:	200		· · · · · · ·	 -		5		250 5		200	1	50					. 5	107
		SISTANT	SE	AMEN.		DECK IANDS		IREMI	EN	EWARD	s. w	AITERS.		BOYS.		HAMBER MAIDS.	N	umber	Numb perso	ns T	otal ages	Aver
LAKE AND PORTS.	No.	Month- ly wages.	No.	Month- ly wages.	No.	Mor ly wag	r No	. 1	nth- y ges.	Mont ly wage	No	Month ly wages	No	Month ly wages	N	o. Mont	h- or	aking linary rew.	emplo men durir year	y p t I	ald er nth.	rate of wages per month.
Lake Champlain	2	\$ 36	6	\$156	24	\$5	522 28		873 4	\$24	8 16	\$240	1	\$15	5	4 \$6	0	173	2	16	6, 769	\$39. 13
Burlington, Ver- mont.	2	36	6	156	19	3	18		569 4	24	8 16	240	1	15	5	4 6	0	133	1	58	5, 07?	38. 17
Plattaburg, New York.					5	1	135 10		304				-					40		58	1, 69 2	42.30

EARNINGS AND EXPENSE ACCOUNTS—Continued.

TABLE 10.—EMPLOYÉS AND WAGES—Continued.

SAILING VESSELS.

	C.	APTAINS.	F	IRST MAT	E8.	BEC:		c	LERKS.	E	First Ginker		SECO!		WHE	ELMEN.	LOOKOUT	S. WATCI	HMEN.	C	оокв.
LAKE AND PORTS.	No.	Monthly wages.		o. Mont		No.	fonth- ly vages.	No.	Month wages		Mont		Mor	nthly	No.	Monthly wages.	No. ly wage	No.	fonth- ly vages.	No.	Month- ly wages.
Lake Champlain	13	\$580	-) j	5 *	120															ß	\$92
Burlington, Ver-	4	160	- -	2	55											•••••				4	66
Plattsburg, New York.	9	420		3	65	!! 	••••						.				<u>'</u>			2	26
·		SISTANT OOKS.	88	AMEN.		DECK IANDS.	FI	REMI	EN. ST	EWARD	s. w	AITERS.		во ч 8.	c	HAMBER- MAIDS.	Number	Number persons given			Aver-
LAKE AND PORTS.	No-	Month- ly wages.	No.	Month- ly wages.	No	Mont ly wage	No	. 1	nth- y ges.	Mon ly wage	No.	Month ly wages	No.	Montilly wages	N	Month ly wages.	making ordinary crew.	employ.		l	rate wages per month.
Lake Champlain	ļ		11	\$210	i			ļ					-1				35	53	\$1,0	02	\$28.63
Burlington, Ver-			3	65	-								- -¦'		_ -	-	13	17	3	46	26, 62
mont. Plattsburg, New York.			8	145	ļ			ļ					<u>.</u>	ļ			22	36	6	56	29. 82

TABLE 11.—FUEL ACCOUNT—AMOUNT AND VALUE OF THE COAL USED FOR FUEL ON ALL THE OPERATING LAKE STEAMERS, WITH SEPARATE ENTRIES UNDER THE HEADS OF CLASSIFIED OCCUPATIONS.

LAKES AND PORTS.	Tons of coal.	Cost of fuel.	PASSENGER, PA PREIGHT, AN		TOWBO	ATS.	MISCELLA	NEOUS.
			Coal, in tons.	Value.	Coal, in tons.	Value.	Coal, in tons.	Value.
Lake Champlain	10, 910	\$40, 827	5, 787	\$20, 831	3, 400	\$13,922	1, 723	\$6,074
Burlington, Vermont	5, 862 5, 048	20, 313 20, 514	5, 287 500	18, 831 2, 000	3,400	13, 922	575 1,148	1, 482 4, 592

STATISTICS OF TRANSPORTATION.

COMPARATIVE STATISTICS.

TABLE 19.—FLEETS FOR THE TEN YEARS, 1880-1889—NUMBER AND TONNAGE OF ALL STEAMERS AND SAILING VESSELS REGISTERED IN THE CUSTOMS DISTRICTS OF LAKE CHAMPLAIN FOR THE DECADE 1880-1889.

	22 32	4, 1 6 9, 12 2, 412, 32	9 10	3, 105. 63 996. 75	13 22	1, 063. 49 1, 415. 57	19 34	3, 958. 23 2, 532. 62	10	3, 105. 63 996. 75	10 24	852. 6 1, 535. 8
	54	6, 581. 44	19	4, 102. 38	35	2, 479. 06	53	6, 490. 85	19	4, 102. 38	34	2, 388. 4
	Num- ber.	Tonnage.	Num- ber.	Tonnage.	Num- ber.	Tonnage.	Num- ber.	Tonnage.	Num- ber.	Tonnage.	Num- ber.	Tonnage.
IS DISTRICTS.	7	OTAL.	STE	SAMERS.	SAILIN	G VESSELS.	т	OTAL.	ST	EAMERS.	BAILIN	O VESSELA
			1	1888						1889	. 	
K	41	3, 329, 59 2, 947, 37	13	2, 333. 92 1, 197. 72	12 28	995. 67 1, 749. 65	32 32	3, 266, 57 2, 333, 74	9	2, 333. 92 854. 6 3	23	932, 6 1, 479. ı
	62	6, 276. 96	22	3, 531. 64	40	2, 745. 32	52	5, 600. 31	18	3, 188. 55	34	2,411.7
	Num- ber.	Tonnage.	Num- ber.	Tonnage.	Num- ber.	Tonnage.	Num- ber.	Tonnage.	Num- ber.	Tonnage.	Num- ber.	Tonnage.
S DISTRICTS.		POTAL.	STE	SAMERS.	SAILIN	G VESSELS.	7	COTAL.	STI	EAMERS.	SAILIN	G VESSELS
			1	1886	II.				,	1887		
	39	2, 813. 20	13	1, 175. 53	26	1, 637. 67	40	2, 859. 14	13	1, 175. 53	27	1, 683. 6
······································	60 	6, 206. 98 3, 393, 78	21	3, 493, 94	39	2, 713. 04	61	6, 239. 26 3, 380, 12	21 	3, 493. 94 2, 318, 41	13	2, 745. 3 1, 061. 3
	Num- ber.	Tonnage.	Num- ber.	Tonnage.	Num- ber.	Tonnage.	Num- ber.	Tonnage.	Num- ber.	Tonnage.	Num- ber.	Tonnage.
48 DISTRICTS.		FOTAL.	sri	EAMERS.	SAILI	NG VESSELS.		FOTAL.	ST	EAMERS.	SAILI:	VESSELS
				1884					il .	1885	- ₀	
·····	32	2, 427. 48	8	867. 17	24	1, 560. 31	37	2, 645. 97	12	1, 076. 65	25	1, 569.
	-								i		:\ 	2, 719. 0
	ber.	Tonnage.	ber.	Tonnage.	ber.	Tonnage.	ber. 	Tonnage.	ber.	Tonnage.	ber.	Tonnage.
is districts.		TOTAL.		EAMERS.	-	NG VESSELS.	 -	POTAL.	<u> </u>	EAMERS.	il	G VESSELS.
	Ì		1	1882	11		ļ		11	1888	1,	
	39	2, 778. 98	12	1, 049. 22	27	1, 729, 76	37	2, 694. 75	10	962.70	27	1, 732.
		5, 247. 86 2, 468. 88	19	2, 580. 24 1, 531, 02	17	2, 667. 62 937. 86	67 30	6, 028, 15 3, 333, 40	18	2. 863. 85 1. 901. 15	49	3, 164. 3
	Num- ber.	Tonnage.	Num- ber.	Tonńage.	Num- ber.	Tonnage.	Num- ber.	Tonnage.	Num- ber.	Tonnage.	Num- ber.	Tonnage
MS DISTRICTS.		FOTAL.	вт	EAMERS.	SAILI	NG VESSELS.		TOTAL.	81	EAMERS.	SAILI!	NG VESSEL
	IS DISTRICTS. S DISTRICTS. S DISTRICTS.	Number.	Number Tonnage	Number Tonnage Number	TOTAL STEAMERS. Number. Tonnage. Number.	Number Tonnage Number Tonnage Number Tonnage Number Tonnage Number Tonnage Number Tonnage Number Tonnage Number Tonnage Number Tonnage Number Tonnage Number Tonnage Number Tonnage Number Tonnage Number Tonnage Number Tonnage Number Tonnage Number Number Number Tonnage Number Number Number Tonnage Number Tonnage Number Tonnage Number Tonnage Number Number Tonnage Number Tonnage Number Tonnage Number Tonnage Number Tonnage Number Tonnage Number Tonnage Number Tonnage Number Tonnage Number Number Tonnage Number	STEAMERS SAILING VESSELS Number Tonnage Number Tonnage Number Tonnage Number Tonnage Number Numb	STEAMERS SAILING VESSELS Number Tonnage Number Numbe	TOTAL STEAMERS SAILING VESSELS TOTAL Num ber. Tonnage Num	TOTAL STEAMERS BAILING VESSELS TOTAL S	Number	S DISTRICTS.

Tonnage.

2, 667, 62 3, 164, 30 2, 540, 32 2, 719, 69 2, 713, 04

Number.

Number.

Tonnage.

5, 247. 86 6, 028. 15 5, 829. 52 6, 104. 64 6, 206. 98 ; Tonnage.

2, 580, 24 2, 863, 85 3, 289, 20 3, 384, 95 3, 493, 94 Number. Tonnage.

> 3, 498, 94 3, 531, 64 3, 188, 55 4, 102, 38 4, 102, 38

Num-

1885 1886 1887 1888 1889 Tonnage.

6, 239, 26 6, 276, 96 5, 600, 31 6, 581, 44 6, 490, 85 Number. Tonnage.

> 2, 745, 32 2, 745, 32 2, 411, 76 2, 479, 06 2, 388, 47

COMPARATIVE STATISTICS—Continued.

TABLE 13.—VESSEL TONNAGES FOR THE 10 YEARS, 1880-1889—NUMBER, AGGREGATE AND AVERAGE TONNAGE OF ALL STEAMERS AND SAILING VESSELS REGISTERED AT THE CUSTOMS DISTRICTS OF LAKE CHAMPLAIN FOR THE DECADE 1880-1889.

STEAMERS.

		1880			1881		į.	1882		įĮ.	1883	١		1884	
CUSTOMS DISTRICTS.	Num- ber.	Tonnage.	Average.	Num- ber.	Tonnage.	Average.	Num- ber.	Tonnage.	Average.	Num- ber.	Tonnage.	Average.	Num- ber.	Tonnage.	Aver- age.
Vermont, Vermont	7 12	1, 531 1, 049	219 87	8 10	1, 901 963	238 96	11 8	2, 422 867	220 108	7 12	2,308 1,077	330 90	8 13	2, 319 1, 175	290 90
		1885		ļi i	1886			1887		1	1888			1889	
CUSTOMS DISTRICES.	Num- ber.	Tonnage.	Aver- age.	Num- ber.		Aver- age.	Num- ber.	Tonnage.	Aver- age.	Num- ber.	Tonnage.	Aver- age.	Num- ber.	Tonnage.	Aver- age.
Vermont, Vermont	8 13	2, 318 1, 175	290 90	9 13	2, 334 1, 198	259 92	9	2, 334 854	259 95	9 10	3, 106 997	345 100	9 10	3, 106 997	345 100

SAILING VESSELS.

		1880			1881			1882			1888			1894	
CUSTOMS DISTRICTS.	Num- ber.	Tonnage.	Aver- age.	Num- ber.	Tonnage.	Aver- age.	Num- ber.	Tonnage.	Aver- age.	Num- ber.	Tonnage.	Aver- age.	Num- ber.	Tonnage.	Aver- age.
Vermont, Vermont	17 27	938 1, 730	55 64	22 27	1, 432 1, 732	65 64	17 24	980 1,561	58 65	16 25	1, 151 1, 569	72 63	13 26	1, 075 1, 638	83 63
		1885			1886		P d	1887		!	1888			1889	
CUSTOMS DISTRICTS.	Num- ber.	Tonnage.	Aver- age.	Num- ber.	Tonnage.	Aver-	Num- ber.	Tonnage.	Aver- age.	Num- ber.	Tonnage.	Average.	Num- ber.	Tonnage.	Aver- age.
Vermont, Vermont	13 27	1, 062 1, 684	82 62	12 28	996 1, 749	83 63	11 23	933 1, 4 79	85 64	13 22	1, 063 1, 415	82 64	10 24	852 1, 536	85 64

STEAMERS AND SAILING VESSELS.

· ·		1880		!	1881			1882		i	1883		ļ. !i	1884	
CUSTOMS DISTRICTS.	Num- ber.	Tonnage.	Aver- age.	Num- ber.	Tonnage.	Aver- age.	Num- ber.	Tonnage.	Aver-	Num- ber.	Tonnage.	Average.	Num- ber.	Tonnage.	Aver- age.
Vermont, Vermont	24 39	2, 469 2, 779	103 71	30 37	3, 333 2, 695	111 73	28 32	3, 402 2, 428	122 76	23 37	3, 459 2, 646	150 72	21 39	3, 394 2, 813	162 72
		1885			1886		i I	1887		1	1888		i	1889	
CUSTOMS DISTRICTS.	Num- ber.	Tonnage.	Aver- age.	Num- ber.	Tonnage.	Aver- age.	Num- ber.	Tonnage.	Average.	Num- ber.	Tonnage.	Aver- age.	Num- ber.	Tonnage.	Aver- age.
Vermont, Vermont	21 40	3, 380 2, 859	161 71	21 41	3, 330 2 '947	150 72	20 32	3, 267 2, 333	163 73	22 32	4, 169 2, 412	190 75	19 34	3, 958 2, 533	208 75

STATISTICS OF TRANSPORTATION.

COMPARATIVE STATISTICS—Continued.

TABLE 14.—TONNAGE FLUCTUATIONS FOR THE 10 YEARS, 1880-1889—AVERAGE ANNUAL NUMBER AND TONNAGE OF ALL STEAMERS AND SAILING VESSELS REGISTERED AT THE CUSTOMS DISTRICTS OF LAKE CHAMPLAIN FOR THE DECADE 1880-1889, TOGETHÉR WITH THE INDICATED YEARS OF HIGHEST, LOWEST, AND MEAN REGISTRATION.

STEAMERS.

CUSTOMS DISTRICTS.	Annual average number of		HEET OVE RAGE.	VARI BEI TOM	.ow		EST TO RAGE.	Fluctu	Annual average regis-		EST ABOVE ERAGE.		ST BELOW ERAGE.		BEST TO ERAGE.	Fluctu
	regis- tered.	Year.	Num- ber.	Year.	Num- ber.	Year.	Num- ber.	ation.	tered ton- nage.	Year.	Number of tons.	Year.	Number of tons.	Year.	Number of tons.	ation.
Vermont, Vermont	9 11	1882 1884	11 13	1880 1882	7 8	1886 1880	9 12	4 5	2, 368 1, 035	1888 1886	3, 106 1, 198	1880 1887	1,531 854	1886 1880	2, 334 1, 049	1,575 344
					٤	SAILI	NG VI	ESSELS.								
Vermont, Vermont	14 25	1881 1886	22 28	1889 1888	10 22	1884 1883	13 25	12 6	1, 048 1, 609	1881 1886	1, 432 1, 749	1889 1888	852 1, 415	1885 1884	1, 062 1, 63 8	58
				ST	ЕАМЕ	RS A	ND SA	ILING	VESSELS	•						
Vermont, Vermont	23 36	1881 1886	30 41	1889 1882	19 32	1883 1881	23 37	11 9	3, 416 2, 645	1888 1886	4, 169 2, 947	1880 1887	2, 469 2, 333	1882 1883	3, 402 2, 646	1, 70 61

TABLE 15.—SHIPBUILDING DURING THE 10 YEARS, 1880-1889 (GENERAL)—NUMBER AND TONNAGE OF ALL STEAMERS AND SAILING VESSELS BUILT IN THE CUSTOMS DISTRICTS OF LAKE CHAMPLAIN FOR THE DECADE 1880-1889.

YRARS.	CUSTOMS DISTRICTS.	BTRA	MERS.		Ling Sels.	YEARS.	CUSTOMS DISTRICTS.	STEA	MERS.		iling Sels.
I BANS.	COGIORS DIGINICIS.	Num- ber.	Ton- nage.	Num- ber.	Ton- nage.	i bans.	CUSTORS DISTRICTS.	Num- ber.	Ton- nage.	Num- ber.	Ton- page.
1880 1882 1883 1885	Champlain, New York Vermont, Vermont Champlain, New York Vermont, Vermont	2 2	199. 93 503. 82	1 3 2		1886 1887 1888	Vermont, Vermout Champlain, New York Vermont, Vermont	1	37. 70 742. 75	1	98.71

RECAPITULATION.

	T	OTAL.	STE	AMERS.	SAILIN	G VESSELS.		т	OTAL.	STE	AMERS.	BAILING	VESSELS.
YEARS.	Num- ber.	Tonnage.	Num- ber.	Tonnage.	Num- ber.	Tonnage.	YEARS.	Num- ber.	Tonnage.	Num- ber.	Tonnage.	Num- ber.	Tonnage.
Total	13	2, 030. 86	6	1, 484. 20	7	546, 66							
1880 1882 1883	3 2 3	220. 32 503. 82 296. 20	2 2	199, 93 503, 82	13	20. 39 296. 20	1885 1886 1887 1888	2 1 1	131. 36 37. 70 98. 71 742. 75	1	37. 70 742. 75	2 1	98.71

COMPARATIVE STATISTICS—Continued.

TABLE 16.—SHIPBUILDING DURING THE 10 YEARS, 1880-1889 (STEAMERS)—NUMBER AND TONNAGE OF ALL STEAMERS BUILT IN THE CUSTOMS DISTRICTS OF LAKE CHAMPLAIN FOR THE DECADE 1880-1889, TOGETHER WITH DATA SHOWING THE NUMBER AND TONNAGE OF PROPELLER, SIDE-WHEEL, AND STERN-WHEEL STEAMERS BUILT EACH YEAR IN EACH DISTRICT.

	YEARS. CUSTOMS DISTRICTS.	PROP	PROPELLER.		SIDE-WHEEL.			PROPELLER.		SIDE-WHEEL.	
YEARS.		Num- ber.	Ton- nage.	Num- ber.	Ton- nage.	YEARS.	CUSTOMS DISTRICTS.	Num- ber.	Ton- nage.	Num- ber.	Ton- nage.
1880 1882	Champlain, New York Vermont, Vermont	2	199. 93 5. 49			1886 1888	Vermont, Vermont		37. 70	1	742.75

RECAPITULATION.

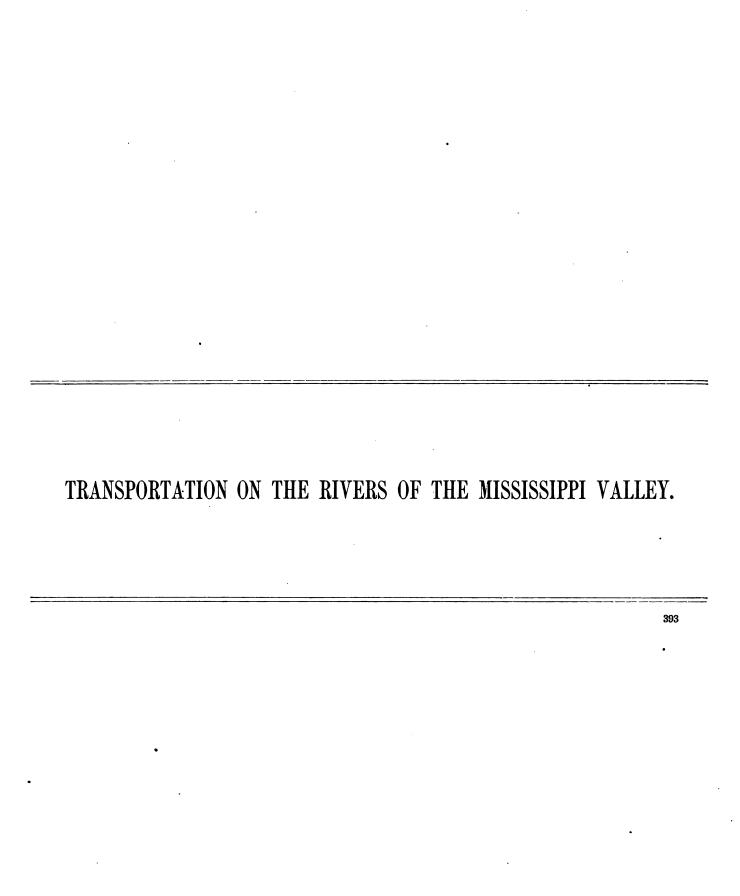
	ALL STEAMERS.		PRO	PELLER.	SIDE-WHEEL.			ALL STEAMERS.		PROPELLER.		SIDE-WHEEL.	
YEARS.	Num- ber.	Tonnage.	Num- ber.	Tonnage.	Num- ber.	Tonnage.	YEARS.	Num- ber.	Tonnage.	Num- ber.	Tonnage.	Num- ber.	Tonnage.
Total	6	1, 484. 20	2	243. 12	2	1, 241. 08	1882 1886 1888	2 1 1	503. 82 37. 70 742. 75	1 1	5. 49 37. 70	1	498. 33 742. 75

CONGRESSIONAL APPROPRIATIONS.

TABLE 17.—APPROPRIATIONS BY LOCALITIES—CONGRESSIONAL APPROPRIATIONS FOR THE SURVEY, IMPROVEMENT, AND MAINTENANCE OF THE HARBORS OF LAKE CHAMPLAIN, AND OF THE RIVERS FLOWING INTO IT, FROM THE EARLIEST DATE OF APPROPRIATION TO 1890, INCLUSIVE, GIVEN BY LOCALITIES AND YEARS.

LOCALITIBS.	Date of earliest appropriation.	Appropriations up to and includ- ing 1879.	Appropriations from 1880 to 1889, inclusive.	Appropriations by act of Con- gress September, 1890.	Total appropria- tions up to date.
Lake Champlain		\$709, 352	\$324,000	\$90,000	\$1, 123, 352
Burlington, Vermont	1836 1890	426, 172	135, 750	20, 000 10, 000	581, 922 10, 00 0
Gordons landing, Vermont	1880 1872	28, 000	8, 500	6, 000 5, 000	34, 750 41, 500
Plattsburg, New York	1836 1884	140, 180	13,000 68,500	32, 000 15, 000	185, 180 83, 500
Survey of Lake Champlain, Vermont	1836 1873	21, 000 61, 000	55, 000 9, 500		76, 000 70, 500
Ticonderoga river, New York. Whitehall harbor, New York	1881 183 6	33, 000	5, 000	2, 000	7, 000 33, 000





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TRANSPORTATION ON THE RIVERS OF THE MISSISSIPPI VALLEY.

BY THOMAS J. VIVIAN.

The rivers from which statistics of the transportation of freight and passengers have been secured for this report for the year ended December 30, 1889, are, roundly speaking, the Mississippi, the Missouri, and the Ohio, with their respective tributaries. A single entry has been made of the Red River of the North because of its geographical location. In grouping these streams according to what may be called commercial divisions, the Mississippi has been divided into the Upper and Lower Mississippi, with Saint Louis as the dividing point, and with the Missouri set down as one of the tributaries of the Upper Mississippi, while the Ohio has been separately considered. In the census report for 1880 a somewhat different division was carried out. The Mississippi was similarly divided and the Ohio was also treated separately, but the Missouri and its tributaries were given an individual report, and also included the business of the Red River of the North. These differing divisions are not allowed, however, to stand as difficulties in comparison, because in all the comparative tables which are presented in this report the returns for 1889 are grouped to correspond with the returns for 1880, a statement which will explain certain other differences which appear between the 1889 returns in the comparative tables for 1880 and 1889 and those which present the positive business of the latter year.

The tributaries which are put down in the 1889 tables as belonging to the 3 divisions of the Upper Mississippi, the Lower Mississippi, and the Ohio are those from which the principal reports of transportation have been made. Thus, the rivers which are considered as being the chief commercial tributaries of the Upper Mississippi, and which make up what is styled the Upper Mississippi system, are the Saint Croix, the Chippewa, the Illinois, the Missouri, the Osage, and the Gasconade. Those which make up the Lower Mississippi system are the White, the Arkansas, the Yazoo, the Washita, and the Red; and those which make up the Ohio system are the Allegheny, the Monongahela, the Muskingum, the Little Kanawha, the Great Kanawha, the Big Sandy, the Kentucky, the Green, the Wabash, the Cumberland, and the Tennessee. It is not to be understood from this that these are the only streams on which a transportation business was done in 1889 or from which a report of operations was received, but only as being convenient and comprehensive streams whose names are sufficiently indicative of their district. The report of the Monongahela, for example, includes all that was done on itself, the Cheat, and the Buckhannon; and the report of the Tennessee includes the business done on itself, the Clinch, the Hiwassee, the Caney fork, and the French Broad. The list of these tributaries and subtributaries on which a transportation business was done in 1889 is such a long one that a separate report from each would be too bulky and intricate for present statistical purposes, but those curious in the matter can refer to the tables and diagram printed with that portion of this report which refers to congressional appropriations made for all the navigable streams of the Mississippi valley, and to that portion of this text in which these tables and diagram are explained at length.

RIVERS OF ORIGIN.

Perhaps no better place can be found than this in which to state that while Saint Louis is styled the dividing point between the Upper and Lower Mississippi, the business of that port is allotted as follows: the business of the vessels coming into that port over the Upper Mississippi or the Ohio is credited respectively to those rivers; but all the business of the vessels leaving that port for any river is credited to the Lower Mississippi, as is the business of those vessels trading locally at that port. This is done in pursuance of the plan which has been adopted to credit to every stream wherever possible such business as has its origin thereon, no matter whether the finality of the operation was on that stream or some other; that is, a steamer carrying freight from Pittsburg to Saint Louis is credited as an operating craft on the Ohio, as is of course a steamer trading between Pittsburg and Cincinnati. In the same way the operations of a steamer trading between Burlington and Saint Louis are credited to the Upper Mississippi, while those of a steamer trading between Saint Louis and New Orleans, or between Vicksburg and Natchez, are credited to the Lower Mississippi. This plan has been adopted in order to avoid any duplication of freight movement, a duplication which would surely occur unless some such plan of allotment was made out and adhered to wherever possible, and of which more will be said when treating of the subject of freight movement by commodities.

In grouping the operations of the steamers constituting the fleet of the Mississippi valley it has been thought better to depart from the plan followed in the report of the vessels belonging to coast ports, and to segregate the returns according to the rivers over which their operations were conducted. The distribution of the steamers according to the rivers of operations is as follows:

STEAMERS, BY LOCALITY OF OPERATION.

Red River of the North	4	Chippewa	1
Saint Croix	15	Missouri, Osage, and Gasconade	52
Illinois	9	Allegheny	6
Ohio	380	Muskingum	7
Monongahela	48	Great Kanawha	21
Little Kanawha	5	Kentucky	5
Big Sandy	8	Wabash	3
Green	5	Tennessee	32
Cumberland	17	White	5
Lower Mississippi	265	Yazoo	11
Arkansas	15	Red	9
Washita	3	m	-
Upper Mississippi	188	Total	, 114

The distribution of the steamers according to their districts of registration is as follows:

STEAMERS, BY LOCALITY OF REGISTRATION.

New Orleans	126	Memphis	71
Vicksburg	. 30	Paducah	53
Chattanooga	00	Saint Louis	115
Louisville		Saint Joseph	6
Kansas city	16	Burlington	43
Omaha		Minnesota (a)	46
Dubuque	28	Galena	.27
Lacrosse	47	Cincinnati	115
Evansville	54	Pittsburg	152
Wheeling	94		
Natchez	4	Total1	1, 114

a Includes the ports of Saint Vincent (on the Red River of the North) and Saint Paul.

Having thus given in broad and general outline an indication of the plan of the present report, the next proceeding will be one of review, and will be taken in order to get back to the days of early transportation on the rivers of the Mississippi valley. The material for this review is abundantly found in the text of the Tenth Census report on steam navigation in the United States, and it is from this full presentation of facts that the following condensation has been made:

EARLY NAVIGATION.

Previous to 1778 the Ohio river was not navigated to any extent in the interests of commerce. Troops and war material of the French were moved from point to point on flatboats, and colonists moving to Kentucky would float down to their destination from Fort Pitt (now Pittsburg) on rafts or flats, as the case demanded. In the month of January, 1778, Captain Willing, acting as agent for the Continental army, took 2 large flatboats loaded with produce to New Orleans, where he exchanged it for arms, ammunition, and stores, and he reached Fort Pitt on his return voyage, bringing up his goods and some 50 men besides. From this time the traffic with the Lower Mississippi was kept up and Pittsburg was soon known as an important trading post. Immigration began then to pour into the Ohio valley, and the navigation of the river increased rapidly. Besides the great variety of small craft and rude arks, numerous well-built keel boats, barges, and some seagoing vessels were soon used in conveying the products of the rich region down the Mississippi, where it found a market and was exchanged for merchandise and West India products. It is stated that as late as 1817 the products of the Mississippi valley arrived at New Orleans in 1,500 barges and 500 flats, but no statistics of this commerce were kept at that early date.

In 1811 Fulton and Livingston began the construction of a steamboat at Pittsburg. She was called the Orleans, and was completed that year, making her first voyage down the river and arriving at New Orleans January 10, 1812. It was found a difficult matter to stem the strong current of the lower river, and this was not practically accomplished until about 1814. Within the next 10 years, however, there were built at Pittsburg 30 steamers, measuring 5,698.78 tons; and from 1815, the date of the first steamer at Louisville, up to 1825, 35 steamers, measuring 6,032.26 tons, were launched at that port and vicinity. The first steamer built at Louisville was called the Kentucky. She measured 112 tons, and, according to the record, came out in 1815. The next was the Governor Shelby, of 106.25 tons burden, built in 1817.

From 1817 to 1827 there were built at Cincinnati 52 steamers, measuring 9,306.61 tons. The Vesta, of 203.01 tons, came out in 1817, and was followed the next year by the Eagle, of 118.49 tons; the Heckla, of 124.25 tons; the

Henderson, of 123.17 tons, and the Cincinnati, of 157.38 tons. Besides these 4 steamers built at Cincinnati in 1818, there were 4 at Louisville, measuring 1,106.46 tons; 5 at Pittsburg, measuring 1,226.48 tons, and 1 at Wheeling, of 140.31 tons. In 1819 there were 12 steamers built at Louisville, measuring 2,375.93 tons; 6 at Cincinnati, measuring 1,551.01 tons; 2 at Pittsburg, measuring 501.71 tons; 1 at Wheeling, of 224.51 tons, and 2 at New Orleans, measuring 662.50 tons. The growth of steamer building on the western rivers was remarkably rapid and exceeded that on the Atlantic coast by a large amount in tonnage, for it is found that in 1820, according to these records, there had been built on the rivers 71 steamers, measuring 14,207.53 tons, as against 52 steamers on the Atlantic coast (exclusive of New England coast), measuring 10,564.43 tons. On July 27, 1820, a writer in a Louisville paper enumerated 73 steamers belonging to western navigation, and there were several on the stocks above the Falls of the Ohio and 2 at New Orleans. Estimating the freight actually carried by each boat at 150 tons, and an average of 3 trips annually, he placed the up-steamer freight at 33,300 tons, while the down freight exceeded this figure. The up freight by flatboats and arks would double this amount, so that 100,000 tons about represented the upward movement. Freights ranged from 1.5 to 2 cents per pound from New Orleans to Louisville, and the amount paid on this up freight by steamers was at that date \$1,332,000, taking the last-named rate as the average. Down freights by steam were estimated at \$666,000. The passenger traffic both ways, calculating 10 to a boat, at \$100 up and \$50 down, was placed at \$333,000, so that the total income from passengers and freight on steamers was estimated at \$2,331,000, to which was added \$500,000 for lower river traffic. Some 3 years previous to this date it is stated there were only 30 steamers navigating the western waters. Great expectations were at this early date raised with regard to the commerce of New Orleans, since goods could be placed by it in any part of the Ohio valley for \$2.50 to \$3 per 100 pounds, while it cost nearly twice these sums to freight merchandise through from eastern seaboard cities. That New Orleans did not gain and hold the trade at that time was attributable to the superior capital and commercial character of the eastern merchants and to the dangerous nature of river navigation at that early date. New Orleans was never an extensive building point. In 1817 the Harriet, of 54.46 tons, was built there, and she was followed the next year by the Louisiana, of 102.54 tons. In 1819 New Orleans is credited with building 2 steamers, measuring 662.50 tons, and in 1820 with 6 steamers, measuring 1,034.12 tons; in 1821, 1 steamer, of 46.53 tons, and in 1822, 4 small boats, measuring only 296.67 tons. Pittsburg, Cincinnati, and Louisville were the leading building points.

From 1820 till the breaking out of the civil war, and up to 1865, when rail communication came into competition with the river interests, the progress of steam navigation on the lower river was rapid and extensive; in fact, the palmy days of steamboating on the Lower Mississippi were from 1840 to 1859, when the country had become populous and railroads had not yet come into active competition.

TRADE BEGINNINGS AT SAINT LOUIS.

Saint Louis was selected by Laclede in 1764 as a point possessing peculiar advantages for the fur trade from the confluence of the different rivers in its neighborhood. The statistics for 16 years previous to 1805 show that the average annual value of the furs collected at this place amounted to \$303,750. The population at this date was estimated at 1,500, more than one-half of whom were absent a greater part of the year engaged in trapping. In 1810 the population was 1,600. In 1820 the census showed that the population had increased to 4,598; in 1830 to 5,852, and in 1840 to 16,469. The first steamboat, the Antelope, arrived here in 1817, on her way to explore the great Missouri. In 1845 a committee of 8 citizens prepared a report on the business of Saint Louis, from which it appears that during the year 1845 there were 2,050 steamboat arrivals in the harbor of Saint Louis, with an aggregate tonnage of 358,045 tons, and 346 keel and flat boats. Of these steamers 250 came up from New Orleans; 406 from different ports on the Ohio river, including arrivals from the Cumberland and Tennessee; 298 from ports on the Illinois river; 643 from ports on the Mississippi above the mouth of the Missouri, not including the daily trip of the Alton packet; 249 from ports on the Missouri river, and 204 from other ports, chiefly from Cairo and intermediate ports. At this date, 1845, the tonnage on the rivers, as reported at the different ports, was as follows:

	TONS.
Pittsburg	9, 233
Wheeling	
Pearl river	378
New Orleans	19, 321
Saint Louis	16, 664
Nashville	5,666
Louisville	7, 114
Cincinnati	13, 137
Total	72, 853

ON THE UPPER MISSISSIPPI.

The first steamboat that ascended the Upper Mississippi as far as Fort Snelling, near the Falls of Saint Anthony, was the Virginia, a stern-wheel boat, which arrived at the fort in the early part of May, 1813. From 1823 to 1844 there were but few arrivals each year, sometimes not more than 2 or 3. The steamers running on the

Upper Mississippi at that time were used altogether to transport supplies for the Indian traders and the troops stationed at Fort Snelling. Previous to the arrival of the Virginia keel boats were used for this purpose, and 60 days' time from Saint Louis to the fort was considered a good trip. In 1844 the country had become settled enough to warrant the introduction of a regular line, and the Otter was put upon the route from Saint Louis to Saint Paul. The next year the Lynx and the Argo followed, and in 1847 came the Senator.

In 1851 3 boats went up the Minnesota river, and in 1852 1 ran regularly up that stream during the season. In 1853 the business required an average of 1 per day.

The following table shows the number of arrivals at Saint Paul from 1844 to 1856, including those from above and below, with date of opening and closing of the river:

YEARS.	Date of first arrival.	Number of arrivals.	River closed.
1844	April 6	41	November 23
1845	do	48	November 26
1846	March 31	24	December 5
1847	April 7	47	November 29
1848	do	63	December 4
1849	April 9	35	December 7
1850	do	104	December 4
1851		119	November 28
1852	April 16	171	November 18
1853	April 11	300	November 30
1854	April 8	215	November 27
1855	April 18	560	November 20
1856	do	846	November 10

In 1856 the arrivals at Saint Paul were as follows:

From Saint Louis	- 212
From Fulton city	_ 28
From Galena and Duluth.	. 228
From Dubuque	. 134
From Minnesota	
From head of Lake Pepin	. 28
Total	846

About the same time a thriving trade sprang up between the sonthern counties of Minnesota and Galena and Dubuque. During a portion of the summer the War Eagle and Tishomingo ran regularly to Winona. Above, on the Upper Mississippi, the 3 steamers, Governor Ramsey, H. M. Rice, and North Star, ran between Saint Anthony and Sauk Rapids.

EARLY DAYS ON THE MISSOURI.

The first steamboat that navigated the Upper Missouri was built at Pittsburg by the American Fur Company in the spring of 1831, and was called the Yellowstone. She was a staunch boat, with side wheels, and had her cabin on the same deck with the boilers. Commanded by Captain Bennett, she made her first trip during the summer of 1831 to Fort Pierre, whence she returned to Saint Louis for the winter. During the summer of 1832 she made her second trip, reaching Fort Union, near the mouth of the Yellowstone river. The second boat was built by the American Fur Company and called the Assiniboine. She made her first trip in 1833, ascending to Fort Union, a few miles above the mouth of the Yellowstone river, whence she returned safely to Saint Louis. This boat made another trip in 1834, and in 1835 ascended as far as the mouth of Poplar creek, some 60 miles above the mouth of the Yellowstone. She was caught by the fast-falling water and was obliged to winter there. The following spring she took on a very valuable cargo of furs and started for Saint Louis. When she had reached Heart river, near where Fort Lincoln is situated, she was burned with her entire cargo.

For the 12 or 15 years following the American Fur Company did all of the steamboating that was done above Kanesville (now Council Bluffs), Iowa, making such improvements on their boats as experience suggested. Many efforts were made to ascend the Missouri river higher than Poplar creek, but it seems that none were successful. During the summer of 1850 the El Paso succeeded in reaching the mouth of Milk river, but during all this time Fort Union was really the head of navigation. The steamboats running farther up the Missouri than Kanesville were owned and operated by and for the American Fur Company only. Western Iowa began settling up at about this date, preparing the way for general commerce. In 1856 several boats besides those owned by the fur company ran up as far as the then new settlement of Sioux city, loaded with supplies suited to the wants of the country. This trade grew rapidly, until in the spring of 1857 boats ran from Saint Louis to Sioux city weekly. Above Sioux city there was little change, the fur company sending up each season from 2 to 4 boats as far as the mouth of the

Yellowstone river. In 1859 they built a small boat called the Chippewa. She was the first stern-wheel boat that navigated the Upper Missouri, and was better adapted to this river than any of her predecessors. She was accompanied by the Spread Eagle as far as Fort Union, and from thence pushed forward alone, passing Milk river, the highest point reached by the El Paso in 1850, and reached Fort McKenzie June 17, 1859. From this place, only a few miles below Fort Benton, she turned back. The Chippewa reached Fort Benton on her trip in 1860, being the first steamboat that ever reached the present head of navigation. About this time there was much interest exhibited in the Montana gold mines, which started an emigration in that direction. Boats were at once fitted out, loaded with provisions, tools, clothing, and such supplies as promised rich profits, and sent to Fort Benton. During the first years of the war the government established a number of posts on the Missouri above Fort Randall. This also increased the demand for boats, so that in 1864 there were at one time a dozen boats above Sioux city. In 1868 the first railroad reached Sioux city. Before the railroad had its warehouses built a company was formed which owned and operated the North Alabama, the Fannie Barker, the Deer Lodge, the Huntsville, the Tennessee, and other boats between Sioux city and Fort Benton. This line carried private, military, and Indian freight, and was quite successful. They operated in connection with the Sioux City and Pacific railroad. In 1870 they sold their shore property to the Peck line, operating on the river at that time. The Kountz line had also 4 boats on the river, and the Coulson line was organized about this time. The Fort Benton Transportation Company was organized in 1875.

PLAN OF THE TABLES.

Reverting to the present work, it will be found that the statistical results of the investigation by the Eleventh Census are embodied in 31 tables. The first 19 of these deal with the positive figures for 1889; the next 9 present the comparative figures for the 2 years of 1880 and 1889; 2 tables deal with the congressional appropriations made for the survey, improvement, and maintenance of the various water ways of the Mississippi valley, while the final table deals with the number of navigable miles on the rivers of the Mississippi valley. In addition to this division of the tables into 3 great groups, the positive statistics in the first 19 tables have been divided into 5 subgroups, entitled "Equipment", "Income and expenditure", "Employés", "Traffic", and "Classified details". Set down in index form the tables are as follows:

EQUIPMENT.

Table 1. Equipment in general.

Table 2. Equipment by classes.

Table 3. Equipment by tonnage.

INCOME AND EXPENDITURE.

Table 4. Expense account in general.

Table 5. Expense account by classes.

Employés.

Table 6. Employés by classes.

TRAFFIC.

Table 7. Passenger and freight movement in general.

Table 8. Freight movement by classes.

Table 9. Commodities moved by freight steamers.

Table 10. Commodities moved on barges.

Table 11. Commodities moved by ferry steamers.

Table 12. Recapitulation of commodities moved.

CLASSIFIED DETAILS.

Table 13. Passenger and freight steamers.

Table 14. Towboats.

Table 15. Ferries.

Table 16. Harbor craft.

CLASSIFIED DETAILS—Continued.

Table 17. Miscellaneous.

Table 18. No traffic report.

Table 19. Résumé.

COMPARATIVE STATISTICS.

Table 20. Fleets in 1880 and 1889.

Table 21. Steamers by classes in 1880 and 1889.

Table 22. Expense accounts in 1880 and 1889.

Table 23. Wage details in 1880 and 1889.

Table 24. Traffic in 1880 and 1889.

Table 25. Documented fleets for 10 years, 1880 to 1889, inclusive,

Table 26. Aggregate and average tonnages for same period.

Table 27. Annual fluctuations of registered tonnage for same period.

Table 28. Shipbuilding for same period.

CONGRESSIONAL APPROPRIATIONS.

Table 29. Appropriations for rivers by detailed localities.

Table 30. Appropriations by totals.

NAVIGABLE WATERS.

Table 31. Navigable miles of the Mississippi fluvial system.

THE EQUIPMENT TABLES.

The first table of equipment (Table 1) shows the number, tonnage, and value of all steamers and unrigged craft of over 5 tons burden owned on the rivers of the Mississippi valley in 1889. This simply deals with the totals, the only divisions made being into steamers and unrigged; and the only distribution effected being that of the steamers and unrigged to each of the rivers upon which they plied, with totals for the Upper Mississippi system, the Ohio system, the Lower Mississippi system, the Red River of the North, and a grand total for the valley.

Table 2, entitled "Equipment by classes", divides up the entries of the previous table, separating the total number of steamers plying on each river into the 5 operating classes or occupations of passenger and freight, towing, ferry, harbor, and miscellaneous, and giving to each class its tonnage and value. The unrigged is also

added to this list of classes, and a supplementary division is made of those steamers from which no traffic report was received. By this allotment the number, tonnage, and value of each class of craft operating on each river may be readily seen.

In Table 3 a new division is made of the steamers documented in the ports of the Mississippi valley in 1889. Instead of dividing them according to their respective occupations, as was done in Table 2, this table divides them according to groups of tonnage, and instead of allotting them to the different rivers on which they plied they are allotted to the various ports of entry. The material for this table was gathered from the report of the commissioner of navigation for 1889, and it is owing to this circumstance that the small discrepancy appears between the tonnage as made up from the census schedules and that gathered from the commissioner of navigation's report. In the case of the census schedules the tonnage of the 1,114 steamers amounted to 210,771.89 tons, while in the case of the commissioner's figures the 1,114 steamers had a tonnage of 209,826.07 tons, a difference of 945.82 tons, which is easily accounted for by the fact that gross tonnage is always a more or less elastic quantity and that it would be impossible to secure absolute identity of tonnage in the reports of two bureaus.

INCOME AND EXPENDITURE.

There are, it will be seen, 2 tables giving the statistics of income and expenditure. The first (Table 4) gives the total gross earnings, expenses, and net earnings of all the fleets operating on the rivers of the Mississippi valley and fluvial systems according to the same plan as was adopted in the general table of equipment (Table 1), while Table 5 divides up these gross earnings, expenses, and net earnings and distributes these totals among the various fleets divided into occupations according to the same plan pursued in the distribution of the fleets in the second table of equipment (Table 2).

One of the chief items making up the total of expenses incurred in the operation of the Mississippi valley fleet was that of wages, and this subject is treated of in Table 6. In this table there are shown the total wages paid during the year to all the officers and men making up the ordinary crews of each class of steamers, together with the total number of men required to work and officer the 975 operating steamers. Of course these figures are not to be understood as indicating the total number of men to whom whole or partial employment was given during the year. That number was necessarily a much larger one, but the difficulties experienced in securing anything like a correct report of this total number were found to be so great that the tabulation of the statistics regarding so nomadic a class of workers as many of the employés of the river steamboats are had to be abandoned. The average wages per man per year are not given in this table, but will be found in Table 23, which deals with the comparative wage statistics of the years 1880 and 1889.

THE TRAFFIC TABLES.

The presentation of the statistics of traffic is made in 6 tables, numbered in running order from 7 to 12, inclusive.

Table 7 shows in a general and comprehensive fashion the number of passengers carried and the tons of freight moved by all the operating craft of the Mississippi valley allotted to the different rivers and systems, the only attempt at detail being that of separating the passengers under the heads of "Regular and excursion" and "Ferry".

A corresponding division of the totals of freight moved will be found in Table 8, wherein the total amounts of freight moved on each river are set down under the respective heads of "Freight carried" and "Freight towed", whether by passenger and freight steamers, ferries, or towboats.

The 4 succeeding tables (9, 10, 11, and 12) carry out this work of division in a still greater degree. In Tables 9, 10, and 11 the freight carried by the passenger and freight steamers, by ferries, and on unrigged is given by commodities, the division of these being carried out to as great an extent as the returns of the schedules would permit. They give about 30 items of commodity, about equally divided between the products of agriculture, of mines, and of merchandise.

In Table 12 all these commodities are gathered under their respective heads and given in one table, thus showing the quantity of each commodity moved by all the operating craft of the Mississippi valley during 1889.

CLASSIFIED DETAILS.

The 6 succeeding tables (13, 14, 15, 16, 17, and 18) form another group, which may be entitled that of "classified details". In these tables the information which had been furnished in the various tables of equipment, income and expenditure, employés, and traffic is gathered together under the 6 titles of "Passenger and freight steamers", "Towboats", "Ferryboats", "Harbor boats", "Miscellaneous craft", and "No traffic report", with a separate table for each class of occupation.

In Table 19 all of the preceding returns are gathered together and a resumé is furnished, in which all the statistics of the various classes of vessels are grouped for each river of the valley. By this method the water transportation in any of its branches, on any river of the Mississippi valley, can be seen at a glance.

An apparent discrepancy exists between the total figures of the amount of freight towed as given in Table 10, which shows the towed freight by commodities, and that given in Table 14, which shows the entire operations of the towboats as a class. In the commodity table the total amount of freight moved on unrigged craft and on rafts on the rivers of the Mississippi valley is set down as 19,059,542 tons, while in Table 14, showing the amount of freight distinctively moved by towboats, the amount of freight moved is set down as 17,133,342 tons. The difference, 1,926,200 tons, is that amount of freight which was towed by passenger and freight steamers on the Illinois, the Allegheny, the Big Sandy, the Green, the Wabash, the White, the Arkansas, the Yazoo, the Washita, the Red. and the Red River of the North. In order to make this clearer, the amount of freight moved on these rivers by passenger and freight steamers has been doubly entered on Table 13 as the amount of freight carried and the amount of freight moved. A simple calculation would show that out of the total 11,159,798 tons of freight credited to the passenger and freight steamers as their share of the transportation business 9,233,598 tons were carried on the steamers themselves, and that the amount which has already been quoted, 1,926,200 tons, was towed. This method of calculation will also explain why, in the commodity table? Table 9), showing the amount of freight carried on the passenger and freight steamers, the total is set down as 9,233,598 tons, while in the class table (Table 13) of the passenger and freight steamers the amount of freight set down as being moved by these steamers is 11,159,798 tons; for just as the 1,926,200 tons of towed freight had to be subtracted from the class table (Table 13) so in this case the same amount of tonnage has to be added to the 9,233,598 tons set down in the commodity table (Table 9).

THE COMPARATIVE TABLES.

So far the tables which have been enumerated have referred only to the condition and operation of the water ways of the Mississippi valley for 1889, while in the 5 succeeding tables, numbered from 20 to 24, inclusive, there are given the comparative statistics for 1880 and 1889. The subjects compared are: Table 20, the number, tonnage, and value of the steamers and unrigged craft owned on the rivers of the Mississippi valley in 1880 and 1889, given by localities; Table 21, the number, tonnage, and value of all steam vessels owned on the rivers of the Mississippi valley in 1880 and 1889, given by their occupations; Table 22, the gross earnings and amount paid in wages by all craft operating on the Mississippi valley in 1880 and 1889; Table 23, the number of men constituting the totals of the ordinary crews employed on all the craft operating on the rivers of the Mississippi valley in 1880 and 1889, together with the wages paid and the calculated averages of annual pay, with a decrease or increase per man, given by localities; Table 24, the number of tons of freight moved and the number of passengers carried by all craft operating on the Mississippi valley in 1880 and 1889, given by localities.

An extension of certain of these comparative statistics is found in the next 4 sets of tables, numbered 25, 26, 27, and 28. The first of these presents the number and tonnage of all steam vessels and barges registered in the customs districts of the Mississippi valley for the years 1880 to 1889, inclusive. The second (Table 26) shows the number, aggregate tonnage, and average vessel tonnage of all the steamers registered in these districts during the same years. The third (Table 27) shows the average annual number of steamers and the average annual tonnage registered in the same districts during the same years, so arranged as to show the fluctuations of registration. The fourth (Table 28) presents the number and tonnage of all steam vessels and barges built in the customs districts of the Mississippi valley during these 10 years, together with data showing the number and tonnage of side-wheel steamers, stern-wheel steamers, and propellers built during each year in each district.

A recapitulation for the 10 years is given for the first and last of these sets of tables, from which those whose interest is not sufficient to lead them into the study of the details of the condition of shipbuilding, the changes in the method of propulsion, and the fluctuations of the operating fleets may see these things in 10 lines instead of 10 tables.

CONGRESSIONAL APPROPRIATIONS.

One of the most interesting tables is Table 29, which gives the amounts appropriated by Congress for the survey, improvement, and maintenance of the water ways of the Mississippi valley from the date of the earliest appropriation down to and including that of the act of Congress of September, 1890. These sums, so far as the grouping of periods is concerned, are given, first, up to and including 1879; second, from 1880 to 1889; third, the appropriations in 1890; and, fourth, the total appropriations from first to last. These sums, so far as the localities are concerned, are given with considerable detail, not only for the rivers and the systems into which all the tables are divided, but also for the different portions of the larger rivers for which appropriations have been made and for whatever tributaries and subtributaries have either been surveyed or improved by the government. An additional column is given, in which is entered the date of the earliest appropriation made for each division of a stream or its tributary. The whole forms a comprehensive index of the government's encouragement and care of the water ways of the Mississippi valley.

Table 30 gathers up the details of Table 29 and gives them in the compact form of totals only.

Table 31 deals with the number of navigable miles on the rivers of the Mississippi valley and the number of miles over which a transportation business was conducted in 1889.

WHAT THE TABLES SHOW.

Having considered the plan of the tables, it is next in order to consider what these tables show.

Taking up first the 3 equipment tables in their order, it is seen, from the totalized figures for the different divisions of the fluvial system of the Mississippi valley, given in Table 1, that in 1889 there were owned on those rivers 1,114 steamers, having a tonnage of 210,771.89 and a value of \$10,539,251; 6,339 unrigged craft, with a tonnage of 3,182,608 and a value of \$4,795,754; a grand total of 7,453 craft, having a tonnage of 3,393,379.89 and a value of \$15,335,005. The figures of total tonnage appear enormous when placed in comparison with those of other sections of the country, but it will be observed that 93.79 per cent of the valley total is tonnage of low grade. Dividing this valley total into system totals, it is found that in 1889, on the Upper Mississippi and its tributaries, including the Red River of the North, there were 269 steamers, with a tonnage of 33,398.47 and a value of \$1,895,269; 359 unrigged, with a tonnage of 191,555 and a value of \$266,923; an aggregate of 628 craft, with a tonnage of 224,953.47 and a value of \$2,162,192. On the Ohio river and its tributaries there were 537 steamers, of a tonnage of 107,195.83 and a value of \$5,192,710; 5,708 unrigged craft, of a tonnage of 2,813,273 and a value of \$3,503,631, making a total of 6,245 craft, of a tonnage of 70,177.59 and a value of \$8,696,341. On the Lower Mississippi there were 308 steamers, with a tonnage of 70,177.59 and a value of \$8,451,272; 272 unrigged craft, of a tonnage of 177,780 and a value of \$1,025,200, making an aggregate of 580 craft, of a tonnage of 247,957.59 and a value of \$4,476,472.

The preceding figures relate to all steamers and unrigged craft owned on the rivers of the Mississippi valley, whether in operation or not. Between these figures and the number of those vessels in operation there is a discrepancy, which is attributable to the fact that there were many steamers which were not in operation during 1889, or from which no traffic report could be secured. This unremunerative stock (unremunerative so far as the purposes of the present report are concerned) is given in Table 2 (and Table 18) under the class title of "no traffic report", and will be found to number 139 for the whole valley, with a tonnage of 17,387.07 and a value of \$904,143. Of this number 33 steamers were owned on the Upper Mississippi system and Red River of the North, representing a tonnage of 4,435.17 and a value of \$214,719; 59 belonged to the Ohio system, with a tonnage of 5,077.09 and a value of \$287,622. This leaves an active balance of 975 steamers, with a tonnage of 193,384.82 and a value of \$9,635,108, divided in their occupations, as will be seen in Table 2, and shown by class tables as follows:

EQUIPMENT OF CLASSES.

Table 13.—In the actual transportation of passengers and freight there were 320 steamers, with a tonnage of 95,215.26 and a value of \$3,661,475, of which number 48 were employed on the Upper Mississippi and tributaries and Red River of the North, with a tonnage of 10,414.73 and a value of \$443,700; 161 were employed on the Ohio, representing a tonnage of 45,513.50 and a value of \$1,752,075, and 111 were employed on the Lower Mississippi system, with a tonnage of 39,287.03 and a value of \$1,465,700.

TABLE 14.—In the towing of freight on all classes of unrigged craft and on rafts there were 290 steamers employed, with a tonnage of 53,875.55 and a value of \$3,422,983, of which 98 were employed on the Upper Mississippi system, with a tonnage of 11,547.70 and a value of \$759,000; 157 were employed on the Ohio system, with a tonnage of 32,662.67 and a value of \$2,035,383, and 35 were employed on the Lower Mississippi system, with a tonnage of 9,665.18 and a value of \$627,600.

Table 15.—Engaged in the ferry business were 163 steamers, having a tonnage of 18,593.40 and a value of \$1,056,250, of which number 51 were employed on the Upper Mississippi system, with a tonnage of 3,905.31 and a value of \$268,300; 61 were employed on the Ohio, with a tonnage of 11,543.53 and a value of \$376,250, and 51 were employed on the Lower Mississippi system, with a tonnage of 3,144.56 and a value of \$411,700.

Table 16.—In local or harbor towing and in such pursuits as would necessarily fall to floating channel property there were 141 steamers, with a tonnage of 18,981.96 and a value of \$1,028,350. Of this number 29 belonged to the ports and harbors of the Upper Mississippi system, with a tonnage of 1,095.81 and a value of \$69,750; 59 belonged to the ports and harbors of the Ohio system, with a tonnage of 5,482.35 and a value of \$370,300, and 53 belonged to the ports and harbors of the Lower Mississippi system, with a tonnage of 12,403.80 and a value of \$588,300.

TABLE 17.—The balance has been grouped under the head of "Miscellaneous", and includes pleasure boats, private excursion boats, traveling shows, and all such craft as can not be said to have any net earnings from the industry of water transportation, of which class there were 61 steamers in operation in the valley, having a tonnage of 6,718.65 and a value of \$466,050. Of this number 10 were employed on the Upper Mississippi system, with a tonnage of 1,999.75 and a value of \$139,800; 40 were employed on the Ohio system, having a tonnage of 4,118.97 and a value of \$255,900, and 11 were employed on the Lower Mississippi, with a tonnage of 599.93 and a value of \$70,350.

EQUIPMENT, BY DISTRICTS OF REGISTRATION.

The third table of equipment (Table 3) furnishes a decided amplification of the list of steamers distributed according to their districts of registration, which was given in the early part of this text. That list was made out irrespective of the order of importance of each district, but on taking up this idea it is found that, so far as the number of documented steamers go, the districts stand as follows in the order of their importance:

DISTRICTS OF REGISTRATION.	Rank in importance of regis- tration, by number.	Number of registered steamers.	DISTRICTS OF REGISTRATION.	Rank in importance of regis- tration, by number.	Number of registered steamers.
Pittsburg, Pennsylvania	1	152	Minnesota	10	46
New Orleans, Louisiana	2	126	Burlington, Iowa	11	43
Cincinnati, Ohio			Vicksburg, Mississippi	12	30
Saint Louis. Missouri	3	115	Dubuque, Iowa	13	28
Wheeling, West Virginia	4	94	Galena, Illinois	14	1 27
Memphis, Tennessee	5	71	Chattanooga, Tennessee	15	22
Evansville, Indiana	6	54	Kansas city, Missouri	16	16
Paducah, Kentucky	7	53	Omaha, Nebraska	17	13
Louisville, Kentucky	8	52	Saint Joseph, Missouri	18	6
Lacrosse, Wisconsin	9	. 47	Natchez, Mississippi	19	4

When, however, the relative importance of the districts as shown by registered tonnage is considered, the order, as will be seen by the following statement, is somewhat changed:

DISTRICTS OF REGISTRATION.	Rank in importance of regis- tration, by tonnage.	Tonnage of registered steamers.	DISTRICTS OF REGISTRATION.	Rank in importance of regis- tration, by tonnage.	Tonnage of registered steamers.
Saint Louis, Missouri	1	42, 827. 04	Minnesota	11	5, 213. 56
Pittsburg, Pennsylvania	2	32, 263. 23	Burlington, lowa	12	5, 059. 39
Cincinnati, Ohio	3	31, 406. 87	Chattanooga, Tennessee	13	3, 966. 09
New Orleans, Louisiana	4	19, 248. 58	Lacrosse, Wisconsin	14	3, 884. 03
Memphis, Tennessee	5	12, 113. 76	Galena, Illinois	15	3, 129, 60
Louisville, Kentucky	6	11, 937. 92	Vicksburg, Mississippi	16	2, 875. 99
Wheeling, West Virginia	7	9, 768. 97	Kansas city, Missouri	17	1, 781. 35
Paducah, Kentucky	8	8, 781. 24	Omaha, Nebraska	18	1, 329, 55
Evansville, Indiana	9	6, 950. 76	Natchez, Mississippi	19	592. 35
Dubuque, Iowa	10	6, 355. 26	Saint Joseph, Missouri	20	340. 53

STATUS OF THE DISTRICTS.

In the number of registered craft Pittsburg easily leads, while Saint Louis stands third, but in the amount of registered tonnage Saint Louis rises to first place, while Pittsburg takes the second. On the other hand, while Wheeling stands fourth in point of number it is seventh in point of registration, and Lacrosse, from being ninth in point of number, sinks to fourteenth in point of registered tonnage. In both number and tonnage, however, Saint Louis, Pittsburg, Cincinnati, New Orleans, Wheeling, Memphis, Evansville, Louisville, and Paducah stand easily as the first 9 districts, while the relative positions of the other districts do not vary very materially.

Looking from localities of registration to the analysis of tonnage (Table 3), it is interesting to note that while the small tonnage steamers, that is, from 5 to 50 tons, number 270, what may be called the medium tonnage steamers, that is, from 100 to 200 tons, are even greater in number, standing at 295. It is also interesting to note how close the number of the 300 to 400 ton steamers stands to the 500 to 1,000 ton class, being 74 to 71, while the number of the 400 to 500 ton class only reaches 28. The number (23) of the 1,000 to 2,500 ton class is rather surprising, but one can not fail to remark that the first 3 tonnage classes, the 5 to 50 tons, the 50 to 100 tons, and the 100 to 200 tons, are undoubtedly the favorite classes of river steamers, their aggregate number standing at 826 out of a total of 1,114, or 74.15 per cent of the whole number, and representing an aggregate tonnage of 69.879.60 out of a total tonnage of 209,826.07, or 33.30 per cent of the whole amount. Equally interesting deductions may be drawn from the returns of the different districts. These returns of equipment by tonnage classes were not kept in the previous census year, so that it is not possible to make any class comparisons, but the question of average tonnage will be considered when the group of comparative statistics is reached.

- EARNINGS AND EXPENSES.

Tables 4 and 5 may be accepted as showing, both by localized totals and by classified details, how the business of water transportation on the rivers of the Mississippi valley paid in 1889. From Table 4 it will be gathered that the gross earnings of the entire operating fleet amounted to \$16,337,533, the expenses to \$12,600,342, and the net earnings to \$3,737,191. From the figures given when making the summary of equipments in Table 1 it was found that the total value of the entire fleet of vessels of all classes in the Mississippi valley, whether in operation or not, amounted to \$15,335,005. In all probability this estimated commercial valuation was short of the actual figures by some 30 per cent, which would raise the real value of the Mississippi valley fleet to \$21,907,150. When localized it is found that of the total figures the operating fleet of the Upper Mississippi system and the Red River of the North took in as gross earnings \$2,618,146, paid out \$1,855,063, and secured net earnings of \$763,083. The gross earnings of the operating fleet of the Ohio system were \$6,702,013, their expenses \$5,270,567, and their net earnings \$1,431,446, while the gross earnings of the operating fleet of the Lower Mississippi system were \$7,017,374, their expenses \$5,474,712, and their net earnings \$1,542,662.

EXPENSE ACCOUNTS OF CLASSES.

So far as the pecuniary results of the different classes go, it is found from Table 13 that the most important are the 320 passenger and freight steamers, which, in 1889, made as gross earnings \$7,651,248, paid out \$6,580,356, leaving net earnings amounting to \$1,070,892. The bulk of these sums was earned and paid out on the Lower Mississippi, where the gross earnings amounted to \$3,040,334, the expenses to \$2,742,406, and the net earnings to \$297,928. Next in importance comes the Ohio, where the gross earnings were \$2,168,215, but as the expenses stand only at \$1,850,248, leaving the net earnings \$317,967, it will be seen that the passenger and freight steamers paid better on this stream than on the Lower Mississippi. The other streams stand as follows: the Upper Mississippi, the Tennessee, and the Red, all with gross earnings over \$300,000; the Cumberland, the Yazoo, the Illinois, the Monongahela, the Missouri system, the Washita, and the White, having gross earnings over \$100,000, and the Muskingum, the Great Kanawha, the Kentucky, the Wabash, the Green, the Red River of the North, and the Allegheny stand in the order given so far as their earnings are concerned.

Though the gross earnings of the towboats (Table 14) were considerably less than those of the passenger and freight steamers, standing as they do at \$6,036,748 against \$7,651,248, the cost of conducting this class of craft was considerably less. As the expenses stand at \$4,098,723 for the towboats and \$6,580,356 for the passenger and freight steamers, this means net earnings for the towboats of \$1,938,025 against \$1,070,892 for the passenger and freight steamers. It is very interesting to notice here that on the Ohio the earnings of both classes are almost identically the same, for while the gross earnings of the passenger and freight steamers on that river amounted to \$2,168,215, the gross earnings of the towboats amounted to \$2,168,020. It will be observed, however, that the expenses of running the towboats, though numbering 114 as against 85 passenger and freight steamers, stand only at \$1,657,136 as against \$1,850,248. The net earnings of the towboats therefore reached \$510,884 as against \$317,967 for the passenger and freight steamers. It is also interesting to notice the importance which towing has assumed on the rivers forming the Upper Mississippi system. The boats engaged exclusively in this business numbered 98, the gross earnings of that fleet reaching to \$1,485,048, out of which were paid \$956,143 expenses, leaving \$528,905 net earnings. A close similarity between the number of vessels engaged as passenger and freight steamers and as towboats on the Ohio system and the strongly marked variations of tonnage and value are all interesting subjects for comparative data.

The expense account of the ferry fleet (Table 15) shows that the whole 163 steamers belonging to the Mississippi valley earned \$1,196,817, out of which was paid \$818,634, leaving \$378,183 net earnings. These figures, however, are not as satisfactory as they might be, and it must be understood that they are only partial reports, the owners of the large ferry lines claiming that their complete returns were made when reporting on the railroads of which they form a transfer link.

The earnings of the harbor boats (Table 16) amounted to \$1,291,080, the expenses to \$940,989, leaving \$350,091 for net earnings. These were chiefly employed at the ports of Saint Louis, Pittsburg, New Orleans, Cincinnati, and Memphis, the others being engaged at various points on the Saint Croix, Great Kanawha, and the Big Sandy. So far as the different systems are concerned the harbor boats of the Upper Mississippi made as gross earnings \$115,249, incurred \$80,675 expenses, leaving \$34,574 net profits; those of the Ohio system ports made as gross earnings \$374,352, paid out \$286,095 expenses, and counted on \$88,257 net earnings, and those of the Lower Mississippi ports made as gross earnings \$801,479, paid out \$574,219 for expenses, and profited to the extent of \$227,260 net earnings.

The gross earnings of the miscellaneous class (Table 17), \$161,640, have been balanced with a similar amount, because these earnings can not be said to have been made in the prosecution of the business of water transportation, and the balance has been struck in order that there might be no difference in the total net earnings of all the craft operating in the Mississippi valley.

CREWS AND WAGES.

One of the chief items accepted as indicating the importance of an industry is that of wages, and, in this particular, water transportation on the Mississippi valley, as is shown in Table 6, may certainly be regarded as an industry of much consequence. During 1889 the total of the ordinary crews of the operating craft numbered 15,996 men, although in the change of employés very many more men found whole or partial employment during the year. At the risk of repetition, it must be stated that this number must be taken as representing the total of the captains, engineers, deck hands, roustabouts, etc., who were required to man and run the 975 operating craft during the year, and to this complement of necessary men there was paid out \$5,338,862. The largest number of these men were employed on the Ohio system, where to 7,663 men, making the complementary crews of 478 operating vessels. there was paid \$2,545,625. The Lower Mississippi system stands next, where to 5,345 men, making up the complementary crews of 261 steamers, there was paid out \$1,948,541; the number of men on the Upper Mississippi system standing at 2,943 as the complementary crews of 233 steamers, the amount paid in wages being \$843,019. In the relation of craft and men (shown in Tables 13, 14, 15, 16, and 17) some peculiar facts make themselves apparent. On the 320 passenger and freight steamers the crew total amounted to 9,101 men, to whom was paid \$2,603,031, or an average of \$286.02 per man, while on the 290 towing steamers the crew total amounted only to 4,742 men, to whom was paid \$1,787,995, or an average of \$377.06 per man, which means that on the towboats the wages paid was on the average \$91.04 per man higher than it was for the average passenger and freight steamer employé. The wages paid on the 163 ferryboats is reported at \$456,676, paid to 893 men, while to the 1,016 men employed on the 141 harbor boats no less than \$400,267 was paid. The reports for the 61 miscellaneous craft show that 244 men were employed, to whom was paid \$81,893.

STATISTICS OF TRAFFIC.

Of the 5 operating classes only 3 can be said to be engaged in traffic, these being passenger and freight steamers, ferry steamers, and towboats. As is shown by Table 7, 29,405,046 tons of freight were moved by these 3 classes jointly on all the rivers of the Mississippi valley, of which amount 6,961,977 tons were moved on the Upper Mississippi system and Red River of the North, 16,041,866 tons on the Ohio, and 6,401,203 tons on the Lower Mississippi system.

The great bulk of this freight was towed, the total towed freight (see Table 8) amounting to 19,059,542 tons, of which 4,810,353 tons were towed on the Upper Mississippi system and Red River of the North, 12,235,201 tons on the Ohio system, and 2,013,988 tons on the Lower Mississippi system.

Nearly all of these 19,059,542 tons of towed freight were moved by the 290 towboats of which the equipment figures have been given. The exact figures of the amount of freight moved by the fleet of towboats are 17,133,342 tons, of which 4,762,024 tons were moved by those of the Upper Mississippi system, 11,149,972 tons by towboats of the Ohio system, and 1,221,346 tons by the Lower Mississippi system fleet of towboats.

The balance of the towed freight, 1,926,200 tons, was towed by the passenger and freight boats on the Illinois, Allegheny, Big Sandy, Green, Wabash, White, Arkansas, Yazoo, Washita, Red, and Red River of the North. By systems, the amounts of freight so towed were 44,692 tons on the Upper Mississippi system, 1,085,229 on the Ohio system, 792,642 on the Lower Mississippi system, and 3,637 on the Red River of the North.

The amount of freight carried on the 320 passenger and freight steamers amounted to 9,233,598 tons for the valley, of which 1,453,732 tons were carried on the Upper Mississippi system, 3,561,767 tons on the Ohio system, and 4,218,099 tons on the Lower Mississippi system. By actual carriage and towing these passenger and freight steamers moved 11,159,798 tons of freight on the rivers of the valley, of which amount 1,502,061 tons were moved on the Upper Mississippi system and Red River of the North, 4,646,996 tons on the Ohio system, and 5,010,741 tons on the Lower Mississippi system.

So far but 28,293,140 tons of freight out of a total movement of 29,405,046 tons have been accounted for. The remaining 1,111,906 tons are credited to the 163 ferryboats. As was explained when speaking of the expense accounts of these steamers, the report of freight carried is not as satisfactory as it might be, because of the claims made by their owners, either that the freight movement had already been given in the reports of railroads or else that their freight had been carried in such a shape (by wagon or car load) that no tonnage returns could possibly be made. Of the 1,111,906 tons given, 539,057 tons were reported for the Upper Mississippi, 800 for the Saint Croix, 158,035 for the Missouri, 244,898 for the Ohio, 168,016 for the Lower Mississippi, and 1,100 for the Arkansas.

It was on these 3 classes of steamers, the passenger and freight, ferry, and towboats, that the passenger traffic of the Mississippi valley was conducted (see Table 7). Most of the excursion passengers were either carried on the towboats or towed on barges by them, while the regular and ferry passengers were of course carried on the steamers devoted to the respective business. The total number of passengers carried during 1889 was, it will be seen, 10,858,894, made up of 2,384,248 regular and excursion passengers and 8,474,646 ferry passengers. By systems, it is found that there were 338,750 regular and excursion passengers carried on the Upper Mississippi and its tributaries and 1,482,984 ferry passengers, a total of 1,821,734. On the Ohio system the regular and excursion

passengers amounted to 1,506,594 and the ferry passengers to 4,996,549, a total of 6,503,143; while on the Lower Mississippi system the regular and excursion passengers numbered 538,904 and the ferry passengers 1,995,113, a total of 2,534,017. No passenger movement was reported for the Red River of the North.

MOVEMENT OF COMMODITIES.

In the analysis of freight traffic shown by Tables 9, 10, 11, and 12 it is seen that while about 30 commodities are reported there are 6 principal commodities which easily lead, these being grain, cotton, coal, iron ore, lumber and forest products, and cotton seed and cotton-seed oil. The movement of these different commodities (see Table 12) was as follows: grain, 1,730,918 tons (wheat, 848,442 tons; corn, 786,888 tons; other grain, 95,588 tons); cotton, 896,292 tons; coal, 8,539,229 tons; iron ore, 574,790 tons; lumber and forest products, 9,300,641 tons; cotton seed and cotton-seed oil, 394,788 tons. Other items of which there was a large movement were: sugar, 190,873 tons; animal products, 177,376 tons; stone and gravel, 178,631 tons; clay and sand, 142,423 tons; hay, 91,579 tons, and iron manufactures, outside of iron (pig and bloom), 92,110 tons. Of flour-mill products there were moved 90,895 tons; of tobacco, 27,959 tons; of fruit and vegetables, 59,610 tons; of ice, 91,010 tons; of petroleum and other oils, 3,538 tons; of iron (pig and bloom), 7,775 tons; of cement, brick, and lime, 2,375 tons; of all other manufactures (including salt), 74,596 tons; of unclassified merchandise, 6,737,075 tons.

The great barge movement (Table 10) was of such commodities as corn, hay, coal, iron ore, stone and gravel, clay and sand, ice, lumber and forest products, cotton, and sugar. Out of a total movement of 91,579 tons of hav 57,635 tons were towed on barges; out of a total of 8,539,229 tons of coal 8,527,115 tons were towed; out of a total of 574,790 tons of iron ore 573,896 tons were towed; out of a total of 178,631 tons of stone and gravel 156,699 tons were towed; out of a total of 142,423 tons of clay and sand 141,464 tons were towed; out of a total of 91,010 tons of ice 91,000 tons were towed; out of a total of 9,300,641 tons of lumber and forest products 8,652,696 tons were towed; out of a total of 190,873 tons of sugar 100,000 tons were towed, and out of a total of 786,888 tons of corn 471,203 tons were towed. The principal towing of these commodities was conducted as follows: that of corn, on the Lower Mississippi, 471,203 tons; that of hay was principally, on the Missouri, 5,000 tons; the Tennessee, 5,000 tons; the Lower Mississippi, 5,000 tons, and the Arkansas, 42,000 tons. The principal towing of coal was done, on the Ohio, 4,018,787 tons; on the Monongahela, 3,059,418 tons; on the Great Kanawha, 941,446 tons; on the Lower Mississippi, 183,848 tons, and on the Arkansas, 165,888 tons. The principal barge movement of iron ore was on the Tennessee, on which 528,248 tons were towed out of a total of 573,896 tons. Stone and gravel were principally towed. on the Allegheny, 19,050 tons; on the Kentucky, 12,861 tons, and on the Arkansas, 120,000 tons. The principal barge movement of clay and sand was, on the Allegheny, 51,500 tons, and on the Cumberland, 89,964 tons. The principal ice movement on barges was on the Upper Mississippi, 45,050 tons, and on the Illinois, 41,950 tons. principal barge movement of lumber and other forest products was 3,372,874 tons on the Upper Mississippi, 846,016 tons on the Saint Croix, 1,131,755 tons on the Ohio, 600,000 tons on the Green, 664,318 tons on the Cumberland. 310,654 tons on the Lower Mississippi, 261,906 tons on the Arkansas, and 325,477 tons on the Chippewa. The principal barge movement of sugar was 100,000 tons on the Lower Mississippi.

Of the commodities which were almost entirely carried on board passenger and freight steamers, the principal were wheat, other grains, mill products, cotton, iron (pig and bloom), cement, brick, and lime, all other manufactures, cotton seed and cotton-seed oil, and general merchandise. Those commodities which were carried entirely on passenger and freight steamers, or of which at least there was no barge movement, were tobacco, fruit and vegetables, animal products, petroleum and other oil, iron manufactures, and bar and sheet metal.

The ferry traffic could not be very well divided into commodities for reasons already referred to, and the bulk of the 1,111,906 tons had to be set down as general merchandise, the figures of that comprehensive commodity being 958,214 tons. Other commodities of which there was a ferry movement, and of which whole or partial returns were received, were: wheat, 8,461 tons; corn, 4,087 tons; other grain, 2,872 tons; mill products, 323 tons; cotton, 550 tons; tobacco, 252 tons; fruit and vegetables, 17,862 tons; coal, 11,801 tons; lumber, 100,400 tons; animal products, 6,858 tons; cement, brick, and lime, 182 tons, with a scattering tonnage of petroleum, sugar, bar and sheet metal, and all other manufactures.

CHARACTERISTICS OF TRAFFIC.

One of the principal values of these commodity tables will be to indicate the distinctive character of the local traffic on each of the rivers. It will be seen, for example, in Table 12 that the bulk of the Upper Mississippi's trade was in lumber and other forest products, the tonnage of that commodity standing at 3,473,189 tons out of a total tonnage movement on that river of 4,486,421 tons, the balance being almost entirely made up of 23,000 tons of wheat, 22,424 tons of coal, 45,050 tons of ice, and 913,888 tons of merchandise. The trade of the Saint Croix consisted almost entirely of a lumber movement, as did that of the Chippewa. The traffic on the Illinois, however, was a much more general one, 114,431 tons of general merchandise having been carried out of a total movement of 180,264 tons. The chief items of commodity movement on the Missouri, Osage, and Gasconade were: wheat, 141,658 tons; corn, 50,502 tons; mill products, 9,598 tons; coal, 51,162 tons; lumber, 104,384 tons; animal products, 11,424 tons, and

general merchandise 743,769 tons. The traffic on the Ohio was a very general one, and included 125,003 tons of wheat, 2,585 tons of corn, 18,522 tons of cotton, 11,656 tons of iron ore, 57,881 tons of sugar, 54,297 tons of iron, and 55,163 tons of all other manufactures; but the principal commodities after all were those of coal, lumber, and general merchandise, the figures being, respectively, 4,018,788 tons, 1,131,777 tons, and 2,293,466 tons. The Allegheny traffic consisted almost entirely of stone and gravel, 19,050 tons; clay and sand, 51,500 tons, and lumber and other forest products, 276,860 tons. The Monongahela's chief commodity was of course coal, there being 3,059,418 tons of that commodity moved out of a total river movement of 3,294,932 tons. The Muskingum's traffic was one of general merchandise; that of the Little Kanawha was almost entirely of lumber and other forest products; that of the Great Kanawha was chiefly confined to coal, 941,446 tons; lumber, 80,468 tons, and general merchandise, 110,848 tons. The Big Sandy's trade consisted very largely of lumber, 142,950 tons, and merchandise, 139,889 tons, the Kentucky running in the same way. The list of the Green's commodities was a much more general one, although lumber was still the principal commodity. The Wabash included a large grain and lumber movement in its report, as did the Cumberland, with an additional item of 89,964 tons of clay and sand. The Tennessee's traffic covered almost the entire list of commodities, although the principal items were 528,248 tons of iron ore, 17,984 tons of corn, 12,542 tons of cotton, 18,657 tons of fruit and vegetables, 35,888 tons of coal, and 20,178 tons of stone. The Lower Mississippi carried but little manufactures, comparatively, except in the item of sugar, of which the tonnage was 130,828 tons; the other principal items were products of agriculture, including 422,800 tons of wheat, 498,746 tons of corn, and 784,008 tons of cotton, the other chief commodities being 183,848 tons of coal; cotton seed and cotton-seed oil, 271,809 tons; general merchandise, 1,704,745 tons, and 310,654 tons of lumber. The traffic of the White was mainly that of lumber, but that of the Arkansas embraced the products of agriculture, mines, and manufactures about equally distributed. The Yazoo's trade was largely made up of 3 items: 22,865 tons of corn, 27,861 tons of lumber, and 14,124 tons of cotton seed and cotton-seed oil. Very nearly the same distribution of freight is to be seen in the Yazoo, the Washita, and the Red.

RESTRICTION OF RETURNS.

As was said in an early paragraph of this text, the attempt has been made, wherever possible, to credit to each stream the commodity traffic which originated there or which was confined to points along that stream; that is, to the Illinois river, for instance, there was credited the 18,000 tons of wheat which were either moved from some point on that river to some other point on the Illinois, or which were moved from some point on the Illinois to some point on another stream. Of course, in attempting to thus confine the credit of freight operations in certain commodities to certain streams, the great difficulty has been to avoid a duplication of freight movement when considering the transportation of the same commodity on some other stream; that is, the difficulty has been to say that no part of these 18,000 tons of wheat is found in the report of wheat movement on any other river. It has, indeed, been almost impossible to confine this commodity movement within such strict limits, but the attempt has been made with reasonable success.

In such commodities as cotton, tobacco, iron ore, sugar and molasses, cotton seed, cotton-seed oil, and hav the work of limitation has not been so difficult, the movement of these commodities being a localized one, but in the movement of such commodities as coal and lumber and other forest products it has been a difficult matter to procure a correct limitation. Take, for example, the commodity of coal. Table 12 shows that in 1889 there were moved on the Ohio 4,018,788 tons of coal, on the Monongahela 3,059,418 tons, on the Great Kanawha 941,446 tons, the coal movement on the other tributaries of the Ohio making a total for the system of 8,102,544 tons of coal. Here the chief rivers of origin were the Monongahela and the Great Kanawha, while the great center of distribution was Pittsburg. chief points of supply were Pittsburg, Wheeling, Cincinnati, Louisville, Saint Louis, Memphis, and New Orleans. the supply of these different points the coal was towed out on barges from the Ohio into the Mississippi, and the difficulty has been to say decisively whether the coal taken over the Lower Mississippi, in the supply of the different cities along that stream, should be set down as part of the traffic of the Lower Mississippi or go only to the Ohio as the stream of origin. It has been found that of the 8,102,544 tons of coal which are set down to the credit of the Ohio and its tributaries 2,104,681 tons were brought out into the Lower Mississippi, while it has also been found that the coal movement which either had its origin on the Lower Mississippi or was confined to between points on that stream, exclusive of the stoppage of coal barges en route from the Ohio to points on the Lower Mississippi, amounted to 183,848 tons. The superior part of Table 12, it will be seen, sets down this amount as being the traffic in the commodity of coal, which alone should be properly credited to the Lower Mississippi, while in the subsidiary part of the same table it is shown that on the Lower Mississippi there was moved a total of 2,288,529 tons of coal, that amount being made up out of the coal brought down from the Ohio and the coal which was moved along the Lower Mississippi as the river of origin.

A similar treatment has been made with respect to the statistics of lumber. Here, it will be seen, the amount of lumber carried over the Lower Mississippi, irrespective of origin, was 1,794,719, while the traffic in lumber on the Lower Mississippi as a river of origin was but 310,654 tons.

ORIGIN OF FREIGHT.

The two sets of figures, therefore, show that on the Lower Mississippi system there was a total movement of coal, irrespective of origin, of 2,465,480 tons, but that on the Lower Mississippi system, as a system of origin, there was a movement of but 360,799 tons, while the total lumber movement on the Lower Mississippi system, irrespective of origin, was 2,222,813 tons, but that the lumber movement on the Lower Mississippi and its tributaries as points of origin was only 738,748 tons.

In the matter of coal it will be seen the total movement on the Upper Mississippi system was 75,886 tons, that on the Ohio system was 8,102,544 tons, and that of the Lower Mississippi and its tributaries was 2,465,480 tons, which, added together, would give a grand total as the freight movement in coal of the vessels on those 3 systems of 10,643,910 tons. But in making up a computation of the total movement of the commodity of coal on these 3 systems it should be understood that it is only proper to take the 75,886 tons on the Upper Mississippi and its tributaries, the 8,102,544 tons on the Ohio and its tributaries, and the 360,799 tons on the Lower Mississippi and its tributaries, with the total of 8,539,229 tons as the true total of the report of the commodity movement of coal on the rivers of the Mississippi valley. In the same way the 3 totals of 4,749,808 tons, 3,812,035 tons, and 2,222,813 tons of lumber and other forest products can be considered as the total freight movement in lumber by all the vessels of the Mississippi valley, but the actual amount of lumber moved on the rivers of the Mississippi valley was only 9,300,641 tons, made up of the 4,749,808 tons moved on the Upper Mississippi and its tributaries as rivers of origin, the 3,812,035 tons moved on the Ohio and its tributaries as rivers of origin, 738,748 tons moved on the Lower Mississippi and its tributaries as rivers of origin, and the 50 tons moved on the Red River of the North as river of origin.

COAL MOVEMENT ON THE OHIO.

From the preceding analysis it will be observed that by far the most important item of freight of the Ohio is coal, and on this account it was thought advisable in preparing a bulletin (No. 88) on transportation on this river to attempt to localize the coal traffic. The subjoined table was therefore worked out, showing the amount of coal shipped from Pittsburg (Pennsylvania), Point Pleasant (West Virginia), Pomeroy (Ohio), Ashland (Kentucky), and Bellaire (Ohio), and the cities to which this coal was shipped:

COAL TRAFFIC ON THE OHIO.

A.-AMOUNT OF COAL SHIPPED FROM PLACES NAMED AND THE DISTANCE CARRIED EXPRESSED IN TON MILEAGE.

FROM—	Tons.	Tons moved 1 mile.
Total	4, 018, 788	2, 644, 392, 853
Pittsburg, Pennsylvania	2, 753, 599	2, 382, 822, 128
Point Pleasant, West Virginia	1, 067, 857	231, 087, 122
Pomeroy, Ohio	136, 900	23, 780, 489
Ashland, Kentucky	42, 530	6, 013, 350
Bellaire, Ohio	17, 902	689, 764

B.-AMOUNT OF COAL SHIPPED FROM PITTSBURG TO PLACES NAMED.

то-	Tons.	Miles.	Tons moved 1 mile.	то	Tons.	Miles.	Tons moved 1 mile.
Total	2, 753, 599	;	2, 382, 822, 128	Greenville, Mississippi	10,000	1, 465	14, 659, 909
	=====			Natchez, Mississippi	46, 231	1,708	78, 962, 548
Cincinnati, Ohio		467		New Orleans, Louisiana	401, 805	1,980	973, 773, 900
Cairo, Illinois	20, 000	967	19, 340, 000	Louisville, Kentucky	596, 249	598	356, 556, 902
Saint Louis, Missouri	100, 000	1, 167	116, 700, 000	Baton Rouge, Louisiana	9, 460	1.848	17, 482, 080
Memphis, Tennessee	126, 160	1, 205	152, 022, 800	Madison, Indiana		570	25, 080, 000
Helena, Arkansas	10,000	1, 284	12, 840, 000	Parkersburg, West Virginia		183	
White river, Arkansas		1, 378	13, 780, 000	raraersourg, west virginia	2, 300	183	420, 900

C.-AMOUNT OF COAL SHIPPED FROM POINT PLEASANT TO PLACES NAMED.

Total	1, 067, 857		231, 087, 122	Greenville, Mississippi	652	1, 201	783, 052
i				Memphis, Tennessee	539	941	507, 199
Cincinnati, Ohio	1, 010, 181	203	205, 066, 743	Frankfort, Kentucky	506	338	171, 036
Louisville, Kentucky	46, 315	334	15, 469 , 210	Orange, Kentucky		373	584, 491
New Orleans, Louisiana	481	1, 716	825, 396	Lawrenceburg, Kentucky		226	107, 576
Baton Rouge, Louisiana	1, 176	1, 584	1, 862, 784	Vanceburg, Kentucky		111	12,000
Donaldsonville, Louisians	183	1,640	300, 120	Portsmouth, Ohio.		90	147, 510
Bayou Sara, Louisiana	1,602	1,549	2, 481, 498	Augusta, Kentucky	408	161	65, 696
Vicksburg, Mississippi	2, 023	1, 336	2, 702, 728		-		-,

COAL TRAFFIC ON THE OHIO-Continued.

D .- AMOUNT OF COAL SHIPPED FROM POMEROY TO PLACES NAMED.

то—	Tons.	Miles.	Tons moved 1 mile.	TO	Tons.	Milos.	Tons moved 1 mile.
Total	136, 900	ļ	23, 780, 489	Frankfort, Kentucky	1, 591	353	596, 923
i		'		Maysville, Kentucky	49, 383	156	7, 703, 748
		-		Vanceburg, Kentucky	2,400	126	302, 400
Cincinnati, Ohio	30, 324	218	6, 610, 632	Ripley, Ohio	8, 800	165	1, 452, 000
Louisville, Kentucky	8, 424	349	2, 939, 976	Richmond, Ohio	3, 200	197	630, 400
Portsmouth, Ohio	25, 994	105	2, 729, 370	Manchester, Ohio	2,000	145	290, 000
Huntington, West Virginia	2, 684	60	161, 040	Chilo, Ohio	2.000	182	364, 000

E.-AMOUNT OF COAL SHIPPED FROM ASHLAND TO PLACES NAMED.

то— .	Tons.	Miles.	Tons moved 1 mile.
Total	42, 530	·	6, 013, 350
Cincinnati, Ohio		147	6, 004, 950 8, 400

The 7 tables of classified details (Tables 13 to 19, inclusive) may safely be considered as self-explanatory, and as really being prepared and presented more as a matter of comprehensive convenience than as furnishing any new lesson.

STATISTICS OF 1880 AND 1889.

In considering the comparative statistics embraced in Tables 20 to 28, inclusive, some peculiar conditions are encountered. As will be seen by the comparative table of equipment (Table 20), there were registered in the ports of the Mississippi valley in 1880 1,198 steamers, which had a tonnage of 251,792.85 and a value of \$12,009,400, while in 1889 the registered steamers numbered 1,114, with a tonnage of 210,771.89 and a value of \$10,539,251, a decrease of 84 steamers, of 41,020.96 tonnage tons, and of \$1,470,149 in value. On the other hand, it will be found that while in 1880 the unrigged craft of the Mississippi valley numbered 3,854, with a tonnage of 909,824.01, the unrigged in 1889 had risen to 6,339 in number, with a tonnage of 3,182,608, an increased number of 2,485, with an increased tonnage of 2,272,783.99. Notwithstanding this increase of tonnage and number, the valuation of the unrigged remains almost stationary. So far as the valuations are concerned, however, they may be considered as a varying quantity. The schedule calls for "estimated commercial value", and the figures set down will run high or low according to the basis upon which the estimator places his value. In some cases a man estimates his vessels at what they cost, while in other cases he estimates them only at what he supposes they would realize in sale, while the insurance agent may have a third estimate; then, too, the depreciation in value has to be considered as a factor in these estimates, although in this case there is no depreciation sufficient to balance the positive increase of craft. A reasonable explanation of difference of estimate arises in the fact that the values given for 1880 are those which were made by local or general experts, while those for 1889 were returned by the owners themselves, and that these owners from first to last manifested a very conservative spirit in rating the value of their property. The same difference in values will be found in the total of all craft owned on the Mississippi valley, for while the total number for 1880 stands at 5,052 and that for 1889 at 7,453, an increase of 2,401, and the total tonnage for 1889 shows an increase of 2,231,763.03 tons, still the valuation remains almost stationary. It is repeated that it is a safe estimate that there is an undervaluation of at least 30 per cent on all these vessels reported for 1889, and calculating on this basis there is an omitted value of \$6,572,145 for 1889, which, added to the estimated commercial value as reported, will give the total valuation for all the craft of the Mississippi in 1889 of \$21,907,150, figures which are somewhat nearer the mark.

NEW METHODS OF TRANSPORTATION.

The decrease in the number of the Mississippi valley steamers must not be taken as an indication of a waning industry. The explanation lies in the new method of transportation as indicated in the increased number and value of unrigged. The exceedingly large barge tonnage on the Ohio has already been referred to, and in addition to this it may be said that at Pittsburg itself there are owned no fewer than 3,581 barges, having a tonnage of 1,982,407 and a value of \$2,145,765, or an average of nearly \$600. Some of the barges rise in value, however, to \$2,000, while there are others, employed by the wood sellers on the small streams, for which \$50 would be a generous estimate. Wood, of course, is the material most generally used, but iron is also freely employed, and steel appears to be coming into favor as a material of construction.

The main employment of the great Pittsburg fleet of barges is in the transportation of coal, and concerning this industry the text of the Tenth Census report on steam navigation of the United States contained the following interesting description:

COAL BARGES OF THE OHIO.

This coal is mined along the banks of the Monongahela river, which has been improved by a series of dams and locks, dividing it up into what are called pools or pockets. Here the small tows, consisting of 3 or 4 loaded barges, are made up and taken out through the locks to Pittsburg, where they are combined in still larger tows for transportation to Louisville. Here they are again combined into immense tows of 30 or more barges and boats for the final trip down the Mississippi. The steamer is put behind these barges and all are bound together in one firm mass by means of ropes and chains tightened by ratchets, and the steamer used as a rudder to guide the field of barges around the bends in the river, great skill being required in the strong currents in performing this task, called "flanking".

* Coal boats contain about 24,000 bushels or 900 tons, and cost from \$700 to \$800 when new. A tow from Pittsburg to Louisville consists of from 12 to 16 barges, or 8 to 10 coal boats, and from Louisville to points below, from 16 to 20 boats and barges. One of the largest tows that was ever taken down from Louisville contained 38 pieces, measuring 862 feet in length, 260 feet in width, and contained 679,854 bushels, and beside this the steamer carried 19,500 bushels, making a grand total of 699,354 bushels, or 25,902 tons. It is claimed that in this traffic is found the cheapest freight rate in the country, as coal has been put into New Orleans, 2,000 miles from Pittsburg, at 60 cents per ton.

This change in method was indicated in the text of the Tenth Census. In speaking of the river interests of the Mississippi in that chapter of Volume IV entitled "Steam navigation in the United States", it says:

The growth of this model barge system on the western rivers has been steady for the past 4 years, and it is now assuming an importance in the commerce of the west worthy of attention. Of the better class of barges " " there were on the Mississippi and Ohio 286 reported to this office, measuring 158,771.50 tons actual capacity. " " In the movement of bulk grain and heavy freights this system is gradually supplanting the ordinary steamer, and it has many advantages. By economy of time and steady movement the barge tug would equal the steamer in speed, making the run from Saint Louis to New Orleans with 5 to 7 barges in about 5 days, at a cash expense of \$1,000. The round trip will not exceed 16 or 17 days. The capacity of the barges varies from 18,000 to 100,000 bushels, the medium being about 35,000 bushels, so that an average tow consists of 7 barges containing 232,834 bushels, or about 7,000 tons.

INCREASE OF TOWED FREIGHT.

This relation of cause and effect is seen to be consistently carried out in the fifth comparative table (Table 24), showing the comparative freight movement in 1880 and 1889. On the steamers, in the first-mentioned year, there were transported 13,557,884 tons of freight, while in 1889 the actual transportation of freight by steamer was but 10,345,504 tons, a decrease of 3,212,380 tons. But while the business of the freight steamer has decreased, it will be seen that the towed freight has very materially gone up, the figures for 1880 being 5,388,638 tons, while in 1889 they had risen to 19,059,542 tons, an increase of 13,670,904 tons of towed freight. The decreased steamer-carried freight will of course diminish this gain, but even when the 3,212,380 tons decrease in steamer freight is taken from the 13,670,904 tons of towed freight there remains a net increase of 10,458,524 tons of freight moved on the rivers of the Mississippi valley in 1889 over the total of 1880, although it is but proper to state here that this increase would probably suffer a diminution if the barge movement for 1880 had been as fully reported as it has been for 1889. On the other hand, it must be understood that 1889 was what is known as a poor year, nearly all of the rivers having suffered from low water. The passenger business has kept up much more steadily than it had been imagined would be the case, and it will be seen that in both the "ferry" and "regular" divisions of the passenger returns the ratio of increased travel has run very steadily with that of population.

COMPARED EARNINGS.

Turning back to the comparative expense account shown in Table 22, it will be seen that only the gross earnings are compared, this limitation being necessary because in the returns for 1880 only that portion of the account was asked for. There is an apparent contradiction here, for while the traffic has increased, as has been shown, the amount of gross earnings has diminished. In 1880 the gross earnings of the Mississippi valley fleet were \$20,293,173. while in 1889 they were reported at but \$16,337,533, a difference of \$3,855,640. Much of this difference can be ascribed to the same set of causes which operate in the returns of valuation, while much more can be ascribed to the diminished earnings of water transportation due to increased competition of railroads. A poor paying business especially affected the Upper Mississippi and the Missouri, as will be seen by the comparative returns for these two parts of the valley system. The business was done for whatever could be had, and in many cases the shipper fixed his own rates. Then, too, the diminution of earnings on the Upper Mississippi and Missouri is attributable to the fact that these are branches of the system where the old methods of transportation still largely obtain, while on the Lower Mississippi, where the new methods of transportation have so rapidly come into vogue, the increase of gross earnings is equally noticeable. On the Ohio the decrease can only be ascribed to the effect of ardent competition. It must be remembered, however, that these are gross earnings, and that in the absence of the expense account they offer no indication whatever of profits. The bulk of the business on the Mississippi and its branches is rapidly passing into the hands of large concerns, which are enabled to control their expenses in such a way as to considerably diminish their gross earnings and yet maintain their net profit.

In Table 23 there are two interesting columns which show the total crews and the amount paid in wages during 1880 and 1889. By the term "total crews", it is repeated, there must be understood the total number of men making up the totals of the ordinary crews required on board each craft, and not the total number of men employed during the year. Here it will be seen that the total number of men has fallen from 23,616 to 15,996, a diminution of 7,620 men, while the wages paid have only dropped from \$6,979,226 to \$5,338,862, a decrease of \$1,640,364, two decrements which do not preserve their ratio. On looking for an explanation of this, it is found set down in the last 3 columns, which show that the rate of wages per man per annum has increased in every part of the system with the exception of the Missouri, and that the whole annual rate of wages has increased \$38.23 per man. The increase, it will be observed, is largest on the Lower Mississippi, and next stands the Ohio, two branches of the valley system where transportation by barges is most practiced. Though the total number of crews has decreased in consequence of the diminution of freight steamers, the smaller number of men who are employed on the barges are men in the receipt of a much higher rate of wages than those whose services have been dispensed with.

FLUCTUATIONS OF FLEETS.

The fluctuations in the documented fleets of the Mississippi valley rivers for the 10 years 1880 to 1889, inclusive, are clearly shown in the 3 tables, 25, 26, and 27, which were carefully prepared from information furnished by the courtesy of the commissioner of navigation and the bureau of statistics.

Two things will be noted from a glance at Table 25: first, that the number of steamers which the commissioner reports as having been documented in 1880 is not the same number as is given by the census for that year as the fleet of the valley, and, second, the very decided drop from the barge fleet of 1880 to that of 1881.

With respect to the first difference it may be stated that the 1,225 steamers which the commissioner reports as the documented fleet of the Mississippi valley also include those steamers which traded from New Orleans seaward, while the 1,198 steamers which the census states formed the fleet for that year do not include those steamers. No division of this sort was made in the commissioner's report until the year 1883, when the New Orleans river fleet was segregated, the number for the port in that year standing at 132 as against 172 for the previous year, and the actual river fleet for the whole valley being set at 1,163 as against 1,226 for 1882.

The very remarkable drop in the barge fleet from 1,070 in 1880 to 233 in 1881 is due to the fact that it was about this time that the law went into effect by which the registration of barges was only compulsory in those cases wherein these craft were employed in the carriage of bonded goods. It may be added here that the still greater difference between the number of barges (1,070) reported on by the commissioner for 1880, and the number (3,854) reported on by the census for the same year is due to the other fact that for this year, as for every other year, the commissioner only reports upon registered barges, while the census reports on every unrigged craft owned and operated. The same explanation can be applied to the number of barges (132) given by the commissioner as the barge fleet in Table 25 for the year 1889, and the number (6,339) given in Tables 1 and 20 as the census barge fleet for the same year.

INDIVIDUAL CASES.

In looking at the number of steamers registered in the customs districts (Table 26), it is found that in this particular Cincinnati has almost stood still, its registration for 1880 being 116, and for 1889 115, its lowest point being in 1884, when its registered fleet was 101, and its highest number being the 116 which made its entry for both 1880 and 1888.

In point of number Saint Louis has very perceptibly and steadily decreased, the series running 162, 153, 163, 160, 136, 141, 129, 132, 123, 115.

Wheeling shows a similar decrease, its series being 142, 137, 144, 110, 109, 112, 101, 109, 109, 94.

Pittsburg, however, shows a far less depreciation, its series of registered fleets being 168, 160, 169, 157, 163, 155, 154, 158, 155, 152.

On the other hand, the customhouse books at Memphis have shown an increase in number, the 1880 fleet numbering 66 and the 1889 fleet numbering 71, the lowest point being 65 in 1881, and the highest being 82 in 1887.

Dubuque has remained almost stationary. In 1880 it had 29 registered steamers and in 1889 it had 28, the average annual registered fleet numbering 25.70.

Vicksburg, with the exception of a temporary obscuration in 1881 and 1882, has maintained a singularly unvarying fleet, the figures for 1883 onward being 28, 30, 32, 30, 30, 30, this being the steadiest record of all the ports, with the exception, perhaps, of Natchez and the district of Minnesota, the first-mentioned district running 3, 5, 4, 4, 3, 3, 3, 4, 4, and the second 48, 45, 48, 46, 48, 44, 46, 49, 47, 46.

Louisville's variation has been but little, too, so far as the number of registered craft is concerned, the fleet of 1889 being 52 against a 53 fleet for 1880.

Burlington took a sudden advance in 1881, showing 42 registered steamers against 31 for the preceding year, but from 1881 onward the registrations have changed very little, the series being 42, 43, 45, 46, 45, 45, 43, 42, 43.

Lacrosse has a record of tolerably steady increase, its fleet running at 39, 44, 45, 35, 43, 40, 41, 45, 45, 47.

Galena also comes very close to maintaining the same standard, the series being 25, 23, 23, 25, 23, 24, 23, 26, 26, 27, a deflection of 2.50 from an average of 24.50.

The tributaries of the Upper Mississippi which flow into it from the north and east are the Prairie, the Rum, the Saint Croix, the Chippewa, the Black, the Wisconsin, the Galena, the Rock, and the Illinois.

The important tributaries of the Saint Croix are the Yellow and the Totogatic.

The Chippewa has a large tributary named the Flambeau.

Because of an artificial channel the Fox may now be considered as a tributary of the Wisconsin.

The Rock has a tributary named the Green.

The principal tributaries of the Illinois are the Kankakee, the Des Plaines, the Vermilion, the Mackinaw, the Spoon, the Sangamon, and the Fox, which of course must not be confounded with the Fox of Wisconsin.

The tributaries of the Upper Mississippi on the south and west are the Minnesota, the Cannon, the Grand, the Zumbro, the Iowa, the Des Moines, the Salt, and the Cuivre.

The Minnesota has as chief tributaries, the Yellow Medicine and the Chippewa, which must not be confounded with the Chippewa of Wisconsin.

The Red River of the North may now also be considered a tributary of the Minnesota, communication having been effected between the two via Portage lake.

The Iowa has for its tributary the Red Cedar.

The chief tributaries of the Missouri are the Big and Little Sioux, the James or Dakota, the Milk, the Yellowstone, the Little Missouri, the Cheyenne, the White, the Niobrara, the Platte, the Kansas, the Osage, and Gasconade, and the 3 rivers of formation, the Jefferson, the Madison, and the Gallatin.

The chief tributaries of the Yellowstone are the Bighorn and the Powder.

The principal tributaries of the Cheyenne are its forks and the Cherry creek.

The Niobrara has a number of tributaries, the principal of which are the Snake and the Keya Paha.

The Milk river has a number of tributaries, but the most important of them are known either as branches or forks.

The Platte can not be said to have any tributaries of importance, its formation occurring at North Platte, in Lincoln county, Nebraska, by the union of the North and South Platte rivers.

The Kansas has many tributaries, of which the principal are the Delaware, the Vermilion, the Big Blue, the Republican, the Solomon, the Saline, and the Smoky Hill.

The tributaries of the Lower Mississippi which flow into it on the east, omitting of course the Ohio, are the Kaskaskia, the Obion, the Forked Deer, the Big Hatchie, the Yazoo, and the Big Black.

The tributaries of the Forked Deer are all known as forks.

The Yazoo has for its chief tributaries the Big Sunflower, the Coldwater, the Tallahatchie, the Yalobusha, and the Tchula, although this latter is generally called a lake.

The tributaries of the Lower Mississippi which flow into it on the west are the Saint Francis, the Arkansas, the Red, and the Atchafalaya, and the many bayous, chief of which are the Bayou Lafourche and the Bayou Terrebonne.

The Saint Francis receives the waters of the Little (of Missouri) and the L'Anguille.

The White river can no longer be considered an individual affluent of the Lower Mississippi, the latest maps of the United States engineers showing it to empty into the Arkansas a few miles above the junction of that river with the Mississippi. It must therefore at this time be considered as a tributary of the Arkansas.

The other tributaries of the Arkansas are the Cimarron, the Canadian, the Petit Jean, and the Fourche la Fave.

The White has for tributaries the Little Red, the Black (of Missouri), the Current, and Cache creek.

Regarding the Washita and Red rivers, a difference of opinion seems to prevail as to which is the branch and which is the main stream, or whether each is distinct from the other; and, indeed, it is a difficult matter to keep any strict list of these constantly varying rivers. The identification of the streams is made all the more difficult because there are two Washitas and a Wichita. One of the Washitas flows southward through Arkansas into Louisiana, while the other comes down from Indian territory into Texas and joins the Red river not far below the confluence with the Wichita. In the present condition of the rivers, as shown by the engineers' map, it would seem best to set down the Red river as the main stream into which flows the Black as its principal tributary, the Black being made up of the Tensas, the Washita of Arkansas, the Saline, which must not be confounded with the tributary to the Kansas of the same name, and a number of bayous, the principal of which are the Bayou Macon, the Bayou Bœuf, the Bayou Bartholomew, the Bayou D'Arbonne, the Little river (of Arkansas), and the Caney.

THE IMPROVED GROUP.

The rivers belonging to Group II are as follows: the Mississippi, the Missouri, and the Ohio.

The Saint Croix, the Chippewa, the Illinois, the Galena, the Wisconsin by its junction with the Fox, the Minnesota, the Cuivre, and the Red Cedar.

The tributaries of the Ohio which have been improved or surveyed by congressional aid are: the Guyandotte, the Licking, the Tradewater, the Monongahela, the Muskingum, the Little Kanawha, the Great Kanawha, the Big Sandy, the Kentucky, the Green, the Wabash, the Cumberland, and the Tennessee.

The subtributaries which have been improved or surveyed by congressional aid are: the Cheat and the Buckhannon, belonging to the Monongahela; the Elk and the Gauley of the Great Kanawha; the Big fork and the Levisa fork of the Big Sandy; the Rough creek of the Green, and the White river (of Indiana) of the Wabash; the Obey river and Caney fork of the Cumberland, and the Tug, the Clinch, the Hiwassee, the French Broad, and the Little Tennessee of the Tennessee.

The tributaries of the Lower Mississippi which have received congressional aid either for improvement or survey are: the Forked Deer, the Saint Francis, the Big Black, the Big Hatchie, the Kaskaskia, the White, the Arkansas, the Yazoo, the Washita, the Black, and the Red.

The subtributaries of these various streams which have been improved or surveyed under congressional appropriations are: the L'Anguille and the Little (of Missouri), tributaries of the Saint Francis; the Black (of Missouri), the Little Red, and Cache creek, belonging to the White; the Fourche la Fave and the Petit Jean, tributaries of the Arkansas; the Big Sunflower, the Coldwater, the Yalobusha, the Tallahatchie, and the Tchula, tributaries of the Yazoo; the Little Missouri (of Arkansas), the Tensas, and Saline, tributaries of the Washita and Black, and the Little (of Louisiana) and the Caney, tributaries of the Red.

Of the various bayous which may be considered as tributaries to the Lower Mississippi system, those which have been either improved or surveyed by congressional aid are: the Bartholomew, the Black, the Bœuf, the Courtableau, the D'Arbonne, the Lafourche, the Loggy, the Pierre, the Atchafalaya, the Vidal, the Teche, the Terrebonne, the Steel, and the Cypress.

THE COMMERCIAL GROUP.

The rivers belonging to Group III are as follows: the Mississippi, the Ohio, and the Missouri.

Of the Ohio system there are: the Allegheny, the Monongahela with its tributaries, and the Buckhaunon; the Little Kanawha, the Great Kanawha with its tributaries, the Elk and the Gauley; the Guyandotte, the Big Sandy, the Licking, the Kentucky, the Green and its tributary, the Barren; the Tradewater, the Cumberland and its tributary, the Caney fork; the Tennessee and its tributaries, the Clinch, the French Broad, and the Hiwassee; the Muskingum, the Wabash and its tributary, the White.

The tributaries of the Upper Mississippi on which a transportation business was done in 1889 were the Saint Croix, the Chippewa, the Minnesota, and the Illinois.

The tributaries of the Missouri on which a transportation business was done in 1889 were the Osage and Gasconade.

The tributaries of the Lower Mississippi system on which a transportation business was done in 1889 were the Saint Francis with its tributaries, the Little and the L'Anguille; the White with its tributaries, the Little Red, the Black, and Cache; the Arkansas and its tributaries, the Petit Jean and the Fourche la Fave; the Red and its tributaries, the Black, the D'Arbonne, the Washita, and the Saline; the Yazoo and its tributaries, the Big Sunflower, the Tallahatchie, and Coldwater; and the Atchafalaya.

The bayous on which a transportation business was done in 1889 were the Bayou Macon, the Bayou Bœuf, the Bayou Courtableau, the Bayou Lafourche, and the Bayou Terrebonne.

EXTENT OF THE MISSISSIPPI VALLEY.

There are no figures at hand from which to give the actual mileage of the streams embraced in Group I, but it is a very conservative estimate to place it at 100,000 miles. The extent of country included in the drainage area of the whole Mississippi valley is something enormous, including over 1,500,000 square miles. In the statistical atlas issued by the census for 1870 the following figures were given as the area of the valley, preceded by the subjoined text:

The Mississippi system is divided into the basin of the Mississippi, which is again divided as Upper and Lower, by a line drawn between Alton and Cairo; the basins of the Ohio, the Missouri, the Red, the Arkansas, and the Rio Grande (the portions of the latter outside the territory of the United States being excluded from the computation as respects both area and population); * * * the Alabama basin, * * * including large portions of Mississippi on the west and of Georgia and Florida on the east * * *; and, last, the basin of central Texas, embracing all the rivers between the Rio Grande and the Bayou Teche.

AREA, C	QUARE MILES.
Basin of the Upper Mississippi	179, 635
Basin of the Lower Mississippi	65, 646
Basin of the Ohio.	207, 111
Basin of the Missouri	527, 690
Basin of the Red	92, 721
Basin of the Rio Grande.	101, 334
Basin of the Arkansas	184, 742
The Alabama basin	145, 990
The Texas basin	178, 434
Total	1, 683, 303

The population of this area, it may be added, was 19,111,804 in 1870, the figures having risen to 24,298,332 in 1890. This population is found in those states which are immediately contiguous to the streams found in Group I,

which are traversed by them; or in those counties of the states lying immediately within their watershed, as, for instance, those counties of Pennsylvania which constitute the watershed of the Monongahela, Allegheny, and their tributaries. The rims of this great basin extend from the borders of New York to the central ranges of New Mexico, and from the eastern slopes of the Rockies in Montana to the peaks of the Great Smoky mountains of Tennessee.

NAVIGABLE AND UTILIZED WATERS.

The rivers contained in Groups II and III are, after all, those of the most practical importance, and in this respect Table 31 will be found of value. It has been made up in very many particulars from information courteously furnished the Census Office by Major H. M. Adams, of the corps of engineers, United States army, and shows the number of navigable miles of the rivers of the Mississippi valley, as they stood in 1889, and the number of miles over which a transportation business was conducted in the same year. From these parallel columns there can be seen with measurable exactness how many miles of navigable streams had been, so to speak, occupied. Of the navigable length of the great rivers, the Mississippi and Ohio, the whole was of course occupied, but in the various systems it will be seen there were many hundred miles of unemployed water. The navigable miles of the Upper Mississippi system, for instance, numbered 4,486, of which but 4,103 miles were operated on; the Ohio system had 4,406 of navigable miles, of which 4,178 were operated on, while out of the Lower Mississippi system of 6,228 navigable miles but 5,695 were operated on. The total navigable mileage of the valley was 15,410, of which 14,266 were reported on as having been used for purposes of transportation. Many of the unemployed 1,144 miles were probably unavailable during 1889 because of the prevailing low water, to which reference has already been made, while it is also quite within the possibilities that many of the miles of subtributaries were merged within the mileage of the larger streams without being individualized.

CONGRESSIONAL APPROPRIATIONS.

It was for the survey and improvement of these 15,410 miles of navigable rivers that \$76,827,463 has been appropriated by the United States government, less a small amount appropriated for the survey of some minor streams which have since been considered unworthy of improvement. Out of this amount, \$29,273,189 has been appropriated for the improvement of the Upper Mississippi system, which system, it will be remembered, includes not only the Saint Croix, Chippewa, Illinois, and Missouri, but also the subtributaries of these streams. Out of the \$29,273,189, \$12,792,679 was appropriated up to and including 1879, the earliest appropriation being made for the Missouri in 1832. In the 10 years 1880 to 1889, \$13,234,510 was appropriated for the streams of the Upper Mississippi system, while by the act of Congress passed in September, 1890, \$3,246,000 was appropriated.

The total appropriations for the Ohio system amounted to \$21,739,272. Of this amount \$9,396,351 was appropriated before or in 1879, the date of the earliest appropriation being 1827, the portion of the Tennessee below Chattanooga being the beneficiary. The balance was made up of \$10,011,921, appropriated in the decade 1880 to 1889, and \$2,331,000 appropriated by the act of Congress, September, 1890.

The total appropriations for the streams of the Lower Mississippi system were \$24,255,002, of which amount \$4,604,677 was appropriated before or in 1879, the earliest appropriation being made for the survey of the Lower Mississippi itself in 1819. The appropriations for this system for the decade 1880 to 1889 were quite large, standing at \$15,916,125, while the appropriations by the September act of the 1890 Congress amounted to \$3,734,200.

Of course the largest appropriations for any one river were those made for the Father of Waters itself; the sum set aside by government for the survey, improvement, and conservation of the whole Mississippi river being \$42,086,536, which only leaves \$34,740,927 to be divided among all its various affluents, tributaries, and subtributaries. The largest sums out of this remainder were \$6,659,250, which was secured by the Missouri; \$9,156,313, expended on the Ohio; \$4,215,051, given to the Tennessee, and \$2,679,500 appropriated for the Great Kanawha. The only other streams which go above the million-dollar limit are the Illinois, \$1,588,651; the Kentucky, \$1,347,000; the Cumberland, \$1,379,500; the Arkansas, \$1,296,875, and the Red, \$1,733,265.

With respect to the amounts appropriated for the improvement of the Mississippi river, omission should not be made of the explanatory fact that the \$42,086,536 only includes the appropriations up to the close of 1890, and for that portion of the river only which extends from the headwaters to New Orleans, that being the only portion of the stream which is included in this report of valley traffic. In the second session of the Fifty-first Congress an additional \$1,000,000 was appropriated for the valley portion of the river, while for the improvement of the mouth of the river the appropriations have amounted to \$7,597,500. The addition of all these various sums means that for the entire river the appropriations have amounted to \$50,684,036.

It may be added that the engineers of the United States army who have been employed on the various works of improving and maintaining navigation state that \$28,829,490 is still needed to carry out the contemplated projects. Supposing therefore that \$25,000,000 of this amount be granted, it will mean a total appropriation for all the water ways of the Mississippi valley proper of \$102,827,463, and for the Mississippi valley and the Gulf portion of the Mississippi river of \$110,424,963.

In addition to the tables of appropriations, there is here presented a chart showing the same figures in a more graphic form, the plan of construction being a modification of the genealogical tree.

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RIVERS OF THE MISSISSIPPI VALLEY.

DIAGRAM SHOWING THE MAIN STREAMS, TRIBUTARIES, AND SUBTRIBUTARIES OF THE GREAT FLUVIAL SYSTEM OF THE MISSISSIPPI VALLEY, WHOSE NAVIGABILITY HAS BEEN IMPROVED OR MAINTAINED BY CONGRESSIONAL APPROPRIATIONS; TOGETHER WITH THE SUMS OF MONEY SO APPROPRIATED FROM THE DATE OF EARLIEST APPROPRIATION UP TO AND INCLUDING THE ACT OF SEPTEMBER, 1890.

THE MISSISSIPPI VALLEY.	MAIN STREAMS OR SYSTEMS.	TRIBUTARIES.		SUBTRIBUTABLES.
	THE UPPER MISSISSIPPI.	The Chippewa. The Illinois. 1 The Wisconsin (and Fox). 2 The Minnesots	2, 899, 974 127, 500	
	Tributaries 5, 614, 339 Total for system 22, 613, 939	The Cuivre The Red Cedar The Galena The Hennepin canal	12, 000 1, 500 166, 000 545, 000	
•	mun wassama	All tributaries		•
	THE MISSQURI. River	The Osage The Gasconade The Yellowstone	260, 000 46, 500 118, 750	
	Total for system 6. 659, 250	All tributaries	425, 250	
		The Allegheny.	252, 500	(The Ohead and Oh
		The Monongahela \$755, 733) Tributaries 18, 5005 The Muskingum The Little Kanawha	774, 233 449, 500 211, 175	The Cheat
		The Great Kanawha 2, 644, 500)	·	5The Elk 29, 00
		Tributaries 35, 0005	2, 679, 500 1, 347, 000	The Gauley 6, 00
		The Green 135, 000) Tributary 25, 000	160,000	The Rough 25, 0
	THE OHIO.	The Big Sandy 296, 500?	301, 500	(The Tug fork
	River 8, 867, 313	Tributaries	16, 500	The Levisa fork 2,50
	Tributaries 12, 871, 959 } Total for system 21, 739, 272	1 110 utarries 30, 500)	1, 379, 500	(Obey river
	,	The Licking	6,000	The White of Latina and on
THE MISSISSIPPI VALLEY.	. ,	Tributary 107, 000 S Beaver river (dam) The Tradewater	813, 000 250, 000	The White, of Indiana 107, 00
Upper Mississippi sys- tem		The Toppegge	16, 500 4, 215, 051	The Duck
tem		All tributaries 12, 436, 459	2, 871, 959	Subtributaries 435, 50
Total for the Missis- sippi system 76, 609, 463		(The Forked Deer The Saint Francis (and Cache creek).	19, 500 55, 500	
Red River of the North 218,000		The White, of Arkansas. 366, 500) Tributaries 95, 400)	461, 900	(The Current
Grand total for the valley 76, 827, 463		The Big Black The Big Hatchie. L'Anguille The Kaskaskia	15, 000 32, 000 17, 000 6, 000	(2.00 2.000 2
		The Arkeness 1 264 2757	1, 296, 875	The Fourche la Fave 26, 56 Le Petit Jean 6, 00
		The Washita	414, 000 8, 000	(The Little Missouri, Ark. 20, 00 (The Saline
·	THE LOWER MISSISSIPPI. River	The Yazoo	356, 000	The Big Sunflower
	Tributaries 6, 322, 840	The Red river 1, 725, 2657 Tributaries 8, 0005	1, 733, 265	(The Little, of Louisiana 5, 56 (The Caney, via Little 2, 56
	Total for system 24, 301, 290]	Bayous	565, 800	Bartholomew 33, 00 Black 25, 00 Beuf 31, 00 Courtableau 31, 20 D'Arbonne 11, 00 Lafourche 132, 55 Loggy 10, 00 Pierre 13, 00 Vidal 2, 00 Teche 100, 77 Terrebonne 38, 80 Cypress 127, 00 Steels 10, 00
		Miscellaneous 1	, 342, 000	Subtributaries 905, 20
		Miscellaneous 1, 342, 000) All tributaries 4, 075, 640 6 All subtributaries 905, 200)		
	Whole river 1, 295, 712	Early appropriations made for whole river without specified localities 1		т. J. V.

DEVELOPMENT OF AREAS AND INTERESTS.

In a series of resolutions passed by the board of directors of the merchants' exchange of Saint Louis in 1890 it was stated that with the improvement of that portion of the Mississippi below the metropolis of Missouri the increase of exports via the Gulf had kept steady pace, and that from very small beginnings in 1872 they had increased yearly until in 1889 nearly 20 per cent of the entire exports of corn from the United States was by this route. The freight on corn from Saint Louis to New Orleans has been less than 6 cents per bushel, making the freight to Liverpool via the river route less than 17 cents per bushel, and by the maintenance of this rate the rail rate to the east, both for home consumption and for export, was reduced to the minimum, viz, 12.88 cents per bushel, which it is claimed would not have been secured except for the competition of the river route.

In this connection it is interesting to find that the estimate has been made that with the uninterrupted and unimpeded navigation throughout the Mississippi the business of all the river cities would increase at least tenfold.

INCREASE OF NAVIGABLE MILES.

A very instructive lesson in the laws of compensation is furnished by the statistics of water transportation for the Mississippi valley, for while business has decreased in certain localities because of the sharp competition of the railroads running through adjacent and tributary states, this diminution has been more than counteracted by the extension of territory consequent upon the opening up of new streams. The following facts and figures are an evidence:

The improvement of the Washita has considerably enhanced the value of timber lands bordering the stream, and a line of steamers has been started to build up a trade between Arkadelphia and Camden.

Transportation on the Bayou D'Arbonne is now being done by boats of 1,000 bales of cotton capacity, while before the improvement of the bayou it had been restricted to boats of 500-bale capacity.

Before improvements 3 months was the average duration of the navigable season on the Bayou Bartholomew. That time has since been increased to 6 months. The commerce of this bayou included last year the movement of 3,000 bales of cotton, 100,000 sacks of cotton seed, 300,000 staves, 2,000,000 feet of square oak timber, and 3,000,000 feet of cypress logs, besides large quantities of logs and sundries. Before 1881 it required 14 days to make a trip to the head of navigation; now the time has been diminished to 7.

Before the improvements of the Big Sunflower in 1880 the river was navigable for light boats about 6 months in the year. At the present time it is navigable the year round and for much larger boats. The time length of the round trip, 180 miles, has been diminished from 8 to 5 days. All the country adjacent to the river has been rapidly improved, and plantations are being cleared up all along its banks where a few years ago it was a wilderness.

Prior to 1883 the commerce of the Forked Deer river, Tennessee, consisted chiefly of staves and lumber brought out on flatboats and rafts of saw logs, while about 1 boat in 3 was lost. Now the trip is made with safety and with less cost, while the commerce indicates that the whole country along the river is finding an outlet for its products.

The amount of commerce done on the Red river, Arkansas, prior to 1884, amounted to the movement of about 20,000 tons, while the census report for 1889 shows that on this river, together with its tributaries, there were carried and towed no less than 105,145 tons.

OPENING UP NEW COUNTRY.

Already the country contributing to the commerce of the Arkansas river has considerably increased, and it has been calculated that with the further improvement of this river the vast acreage of Indian territory and the products of the large extent of Kansas will find Fort Smith or Little Rock its eventual water outlet. Commencing at the head of navigation on the Arkansas and then following down through the fertile valley tributary to it, the cities of Wiehita, Arkansas city, Fort Smith, Dardanelle, Little Rock, and Pine Bluff, 6 of the largest cities in the valley, which, together with their surrounding counties, have a population of over 400,000 inhabitants, depend very largely for their commercial growth and prosperity on the outlet furnished by this river, which in the census year carried 1,663,817 tons of freight. With the continued improvement of this river freights will be still further reduced, fully another million tons of freight will be transported, and the counties of Butler, Chautauqua, Cowley, Elk, Harper, Kingman, Sedgwick, and Sumner, all in Kansas, will be brought into tribute.

When the work of improvement on the Petit Jean, Arkansas, was begun in 1884, commerce on that stream was confined to 2 or 3 high-water trips a year of a light-draft boat, which brought out from 200 to 300 bales of cotton, while now the exports have increased tenfold, and it is estimated that, with the completion of the work, from 5,000 to 6,000 bales of cotton will be annually moved. This stream is the only outlet to the rich Petit Jean valley, while so far the only method of transportation is by wagon, over 1,000 tons of freight being each year brought into the town of Danville, Arkansas, by that means.

A similar condition of affairs exists on the Fourche la Fave, which drains the valley of the same name, a valley which both in mineral and agricultural products is one of the most extensively rich in the state of Arkansas.

Since 1886 the country bordering on the upper reaches of the White river has begun to contribute to the transportation returns of that stream. A marked improvement is noticeable in the agricultural lands, and those products which used to be hauled across the country in wagons from 50 to 80 miles, to Springfield and other points

on the railroad, are beginning to find a more accessible outlet by way of the river to Batesville and Newport. In the census year the freight transportation on the White river was 86,393 tons.

The amount of commerce done on the Upper Black in 1880, when the work of improvement was begun, amounted to about 18,000 tons, with perhaps about as much more on the lower river, while the census report for 1889 shows a movement (on the Washita and Black) of 93,707 tons. The vast tract of land through which the Black river runs is said to be susceptible of unlimited development, and it is calculated that the further improvement of the Black river would be the means of opening up at least 1,000,000 acres of rich farm land within a limit of 5 miles on each side of the river, land that has a capacity of producing \$25 per acre of cotton or corn.

BUSINESS OF THE TRIBUTARIES.

The commerce of the Tennessee river itself, that is, the commerce originating on that river, can not be said to have increased, but that of its tributaries has been very materially enlarged. The trade of the French Broad, for instance, may be said to have almost come into existence during the 10 years dating from 1880. The commerce has already developed largely, having reached 37,000 tons in 1889, the principal products being marble, logs, lumber, shingles, grain, and general merchandise, while, with the further improvement of the upper waters, the mineral wealth of the mountains lying about the headwaters will seek this river as its highway. The commerce on the Hiwassee, another tributary of the Tennessee, is also increasing, while that of the Clinch has risen from almost nothing to an annual movement of over 60,000 tons during the past 10 years.

Very similar conditions are observable in the case of the tributaries of the Cumberland. The trade of the Cumberland as a river of origin has not perhaps shown any more increase than has the Tennessee, but the commerce of the Caney fork and Obey river has almost entirely come into existence since 1880.

So, too, in the case of the Ohio, Allegheny, Monongahela, and Kentucky. The trade originating on these large streams has not materially, if at all, increased, but new tributaries have been and are being brought into operation year after year, together with the consequent improvement of the adjacent country. The commerce of the Licking, which in the year 1889 amounted to 24,801 tons, may be said to date its activity from 1885, and a similar statement would apply to that of the Buckhannon, Elk, Cheat, and others.

Business on the tributaries of the Upper Mississippi and Missouri has also been marked by a promising extension.

CONDENSED RESULTS.

In looking over the list of rivers which form the great fluvial system of the Mississippi valley, it is found that during the census decade the trade of the valley has received accessions from the opening up of the Licking and Tradewater, tributaries of the Ohio; the Buckhannon and Cheat, tributaries of the Monongahela; the Gauley, a tributary of the Great Kanawha; the Tug fork and Levisa fork, tributaries of the Big Sandy; the Rough and Barren, tributaries of the Green; the South fork, Obey river, and Caney fork, tributaries of the Cumberland; the Duck, Clinch, French Broad, and Little Tennessee, tributaries of the Tennessee; the Forked Deer, Saint Francis, Oache creek, Big Black, Big Hatchie, and Little (of Missouri), tributaries of the Lower Mississippi; the Black (of Missouri) and the Little Red, tributaries of the White; the Petit Jean and Fourche la Fave, tributaries of the Arkansas; the Tchula and the Yalobusha, tributaries of the Yazoo; the Tensas, Macon, and S.line, tributaries of the Washita and Black; the Little (of Louisiana) and the Caney as tributaries of the Red, and a long list of bayous along the Lower Mississippi. The opening up of these streams has meant the addition of 2,840 navigable miles to the valley's total of navigable waters, the development of many thousands of square miles of hitherto unutilized land, the exploitation of rich mines hitherto lying idle, a continuation of low freights which otherwise would have been so high as to seriously embarrass if not practically close the movement of products, and such an addition of traffic that notwithstanding a natural decrease of transportation originating on some rivers the transportation on the fluvial system of the whole valley has received such accessions from these new districts that the freight movement for 1889 stands at 28,293,140 tons against a freight movement of 18,946,522 tons for 1880, an increase for the decade of 9,346,618 tons.

RIVER LANDINGS AND DISTANCES.

This text can not be brought to a better close than by giving a list of the trading points and landings on the chief rivers of the Mississippi valley, and while it would be impossible to present a complete catalogue of these places, the list on the following pages will be found to contain the principal localities. Wherever possible the distance between the points named is given.

MISSISSIPPI RIVER LANDINGS BETWEEN SAINT LOUIS AND SAINT PAUL (DISTANCES FROM SAINT LOUIS).

		2.			123
	Miles.		iles.		Miles.
Saint Louis, Missouri		Rock Island, Illinois 8		De Soto, Wisconsin	
Alton, Illinois		Davenport, Iowa 3		Victory, Wisconsin	
Grafton, Illinois		Hampton, Illinois		Bad Axe, Wisconsin	
Cap au Gris, Missouri	66	Le Claire, Iowa 3	346	Warners landing, Wisconsin	
Hamburg, Illinois	88	Port Byron, Illinois 3	347	Brownsville, Minnesota	
Clarksville, Missouri		Princeton, Iowa 3	352	Lacrosse, Wisconsin	571
Louisiana, Missouri	112	Cordova, Illinois 3	353	Dresbach, Minnesota	579
Hannibal, Missouri	140	Comanche, Iowa 3	362	Trempealeau, Wisconsin	589
Quincy, Illinois	160	Albany, Illinois 3	364	Winona, Minnesota	601
Lagrange, Missouri	2000	Clinton, Iowa 3		Fountain city, Wisconsin	611
Canton, Missouri		Fulton, Illinois 3		Mount Vernon, Minnesota	
Alexandria, Missouri		Lyons, Iowa		Minneiska, Minnesota	
Warsaw, Illinois		Sabula, Iowa		Alma, Wisconsin	
			-		
Keokuk, Iowa		Savanna, Illinois 3		Wabash, Minnesota	
Montrose, Iowa		Bellevue, Iowa 4		Reads landing, Minnesota	
Nauvoo, Illinois		Dubuque, Iowa 4		North Pepin, Wisconsin	
Fort Madison, Iowa		East Dubuque, Illinois 4		Lake city, Minnesota	
Pontoosac, Illinois		Wells landing, Iowa 4	148	Wacouta, Minnesota	669
Dallas, Illinois	234	Cassville, Wisconsin 4	163	Red Wing, Minnesota	676
Burlington, Iowa	248	Glenhaven, Wisconsin 4	174	Trenton, Wisconsin	680
Oquawka, Illinois		Clayton, Iowa	181	Diamond Bluff, Wisconsin	
Keithsburg, Illinois		Wisconsin river, Wisconsin 4		Prescott, Wisconsin	
New Boston, Illinois		McGregor, Iowa 4	_	Hastings, Minnesota	
Port Louisa, Iowa		Prairie du Chien, Wisconsin	0000	Newport, Minnesota	
Muscatine, Iowa		Lynxville, Wisconsin		Saint Paul, Minnesota	
				Same rum, simuesora	140
Buffalo, Iowa	219	Lansing, Iowa 5	029		
Mississippt Diver I a	NIDIN	OS DETWEEN CAIDO AND SAINT LOI	TTTO	(DISTANCES PROM CATRO)	
MISSISSIFFI RIVER LA	NDIN	GS BETWEEN CAIRO AND SAINT LOT	urs	(DISTANCES FROM CAIRO).	
Cairo, Illiuois	0	Widow Poes, Missouri	59	Chester, Illinois	190
Birds, Missouri			59	Caldwell, Missouri	
Saint Louis, Iron Mountain and South-			60	Logans, Missouri	
			200		
ern railway, Missouri			61	Roziers, Missouri	
Greenfields, Missouri		Hamburg, Illinois	61	Saint Marys, Missouri	
Pond Lily, Missouri	_	Widow Shepherds, Missouri	62	Whelans, Illinois	
Ables Field, Illinois		Willards, Illinois	65	Bogys, Missouri	
Greenleafs, Illinois	11	Moccasinville, Missouri	65	Quarry town, Missouri	. 131
Brewers, Missouri	13	Vancils, Missouri	66	Stones, Illinois	. 134
Thompsons, Missouri	15	Neeleys landing, Missouri	70	Kaskaskia, Illinois	. 135
Orient Field, Missouri	17	Crawfords, Missouri	75	Saint Genevieve, Missouri	
Saladin Field, Missouri		Springs, or Bennetts, Illinois	75	Mudds point, Illinois	
Haughs landing, Missouri		Preston, or Union point, Illinois	76	Little Rock, Missouri	
Dogtooth island, Illinois		Hines landing, Missouri	76	Sand depot, Missouri	
Brooks point (Simons), Illinois		Birmingham, Missouri.	2200	Fort Chartres, Frank Brickleys, Illinois	
			77		
Davis, Illinois		Sauls, Ilinois	78	Salt point, or Clifton, Missouri	
Browns, or Berrys, Illinois	22		80	Jim Snells, Missouri	
Prices landing, Missouri		9	82	Sycamore landing, Illinois	. 153
Daniels landing, Missouri			83	Cliff, or John Brickeys, Missouri	
West Philadelphia, Missouri		Youngs, Missouri	85	Morrisons, Missouri	154
Commercial point, Illinois	27	Gills, Missouri	85	Salt lake, Illinois	154
Athertons Goose Island landing, Illinois.			88	Walkers, Illinois	155
Jones, or Davis Store, Illinois	31	Burfords, Missouri	92	Goodmans, Illinois	157
Horse Shoe, Athertons, Illinois	31	terms and the same of the same	93	Rush Tower, or Perrys, Missouri	
Burnham island, Jones, Illinois			96	Forest Home, Illinois	
Santa Fe, Illinois		******	96	Lilleys, Missouri	
Commerce, Missouri			1000	Selina, Missouri	
			100		
Uncle Joes, Missouri			103	Hugs island, Missouri	
Thebes, Illinois		Prices, Illinois 1		Crystal city, Missouri	
Doughertys, Missouri		Ryans, Illinois		Platin Rock, Missouri	
Grays point, Missouri		McLeans, Illinois 1		Knowlens, Illinois.	
Jones, Missouri		Excelsior, or Jones, Missouri 1		Harrisonville, Illinois	
College farm, Missouri	47	Hamiltons, Illinois 1	107	Bushburg, Missouri	174
Cape Girardeau, Missouri	50	Rockwood, Illinois		Sulphur Springs, Missouri	
Wanhoo, Illinois		Nicks landing, Missouri 1		Kimmswick, Missouri	178
Randals, Illinois		Boise Brule, Missouri 1		Kirks landing, Illinois	180
Hobbs, Missouri		Allens, Missouri		Jim Smiths, or Hurricane point, Illinois.	180
Mintons point, Illinois		Waters, Missouri		Pull Tight, Illinois	184
			-0.75	Ownersting Misson	186
Devils island (McClures), Illinois		Mancoes, Illinois		Quarantine, Missouri	199
Kinney point, Missouri		Darwins, Illinois		Jefferson barracks, Missouri	900
Taylors, Missouri		Coles mill, Illinois 1		Saint Louis, Missouri	200
Davidsons, Missouri	59	Clareyville, Missouri 1	120		

MISSISSIPPI RIVER LANDINGS BETWEEN CAIRO AND NEW ORLEANS (DISTANCES FROM CAIRO).

	Miles.	Δ.	Ailes.	Miles	
Cairo, Illinois	0	Fletchers landing, Arkansas	158	Glendale, Mississippi	
Norfolk landing, Missouri	7	Elmot landing, Arkansas	160	Williams landing, Arkansas 30	9
O'Briens, Missouri		Plum point, Tennessee	164	Thompsons landing, Mississippi 313	
Columbus, Kentucky	21	Osceola, Arkansas		Delta, Mississippi	4
Belmont, Missouri		Drivers landing, Arkansas		Craigs landing, Arkansas	
Farris landing, Missouri		Tanzals landing, Arkansas		Westover landing, Arkansas 31	
Hickman, Kentucky		Fort Pillow, Tennessee		Friars point, Mississippi	
Frenchs point, Kentucky		Hatchie landing, Tennessee		Old Town landing, Arkansas 32	
Saint James bayou, Missouri		Fulton, Tennessee		Allisons landing, Arkansas	
La Valles landing, Missouri		Falls landing, Arkansas		Hulberton, Mississippi	
Newsoms landing, Missouri	- 1	Dixie landing, Island 34, Arkansas		Modoc landing, Arkansas	_
Lesters landing, Kentucky Kentucky and Tennessee state line		Jones landing, Island 34, Arkansas Mouth of Hatchie river, Tennessee		Hugheys landing, Arkansas 350 Jacksons Point landing, Mississippi 340	
Port Polk, Tennessee		Randolph, Tennessee		Ludlows landing, Arkansas	_
Stewarts landing, Tennessee		Fort Wright, Tennessee		Saint Louis landing, Arkansas 34	_
Tolers landing, Tennessee		Richardsons landing, Tennessee		Sunflower landing, Mississippi 35	_
Kentucky and Tennessee state line		Prestons landing, Arkansas		Robinsonville landing, Mississippi 35	_
Morrisons landing, Missouri		Hampson & Fergusons landing, Arkan-		New Hope landing, Mississippi 35	
Watsons point, Kentucky		sas	188	Malones landing, Mississippi 35	
New Madrid, Missouri		Idaho landing, Arkansas	191	Lake Charles landing, Mississippi 35	_
Lower Madrid landing, Missouri	1	Golden Lake landing, Arkansas	191	Andersons landing, Mississippi 35	_
Nolands landing, Kentucky		Tuckers landing, Arkansas	193	Pushmataha landing, Mississippi 359	9
Toney landing, Missouri	75	Pecan Point landing, Arkansas	196	Ludlows landing, Arkansas	9
Marrs landing, Tennessee	. 77	Deans landing, Arkansas		Crows landing, Mississippi 36	5
Darnells landing, Tennessee	78	Andrews landing, Arkansas		Beiths landing, Arkansas	6
Point Pleasant, Missouri	79	Thomas landing, Tennessee		Parkers landing, Mississippi 36	7
Williams landing, Missouri		Corona landing, Arkansas		Australia, Mississippi	
Phillips landing, Missouri		Randolph point, Tennessee		Australia landing, Mississippi 37	0
Lazells landing, Missouri		Woodwards landing, Arkansas		Dyers landing, Mississippi	
Ruddles landing, Missouri		Eldorado, Arkansas		Dennis landing, Mississippi	
Tiptonville, Tennessee	3	Bradleys landing, Arkansas		Laconia, Arkansas	
Shaws landing, Tennessee		Hollybush landing, Arkansas		Lulu landing, Arkansas	
Reelfoot landing, Tennessee		Redmans landing, Arkansas		Concordia, Mississippi	_
Rileys landing, Tennessee		Mound city landing, Arkansas	226	Maysonia, Mississippi	
Stewarts landing, Missouri		· ·	229	Hills landing, Arkansas	_
Batsells landing, Missouri		Mouth of Wolf river, Tennessee		Frawleys landing, Mississippi	_
Stewarts lower landing, Missouri		Memphis, Tennessee		Graddys landing, Arkansas	
Bass landing, Tennessee			233	McGehees landing, Mississippi 39	_
D. Phillips landing, Missouri		l	236	Waxhaw landing, Mississippi 39	
Reelfoot landing, Tennessee		McConnells landing, Arkansas		Mouth of White river, Arkansas 39	_
Le Dukes landing, Tennessee		Rowleys landing, Arkansas		Terrene, Mississippi 39	
Hathaways landing, Tennessee	102	Jones landing, Arkansas	238	Cumbyville, Arkansas 39	
Gayoso, Missouri		Reeves landing, Arkansas		Malones landing, Arkansas 39	7
Ferris landing, Missouri	. 108	Harris landing, Arkansas	244	Rosedale landing, Mississippi 39	8
Caruthersville, Missouri	. 110	Horn Lake landing, Tennessee	244	Riverton landing, Mississippi 39	9
Linwood landing, Tennessee	. 115	Collins landing, Tennessee		Black Hawk landing, Arkansas 40	1
Booths Point landing, Tennessee		Scanlans landing, Arkansas	- 1	Mouth of Arkansas river, Arkansas 40	1
Loves landing, Tennessee		Fairview landing, Arkansas		Glen Lou landing, Arkansas 40	1
Pates landing, Tennessee		Pinkney's landing, Arkansas	1	Prentiss landing, Mississippi 40	
Mitchells landing, Tennessee		Cat Island landing, Arkansas		Holly Ridge landing, Arkansas 41	
Cottonwood Point landing, Missouri		Norfolk landing, Mississippi		Caulks landing, Arkansas 41	
Helms landing, Missouri		Star landing, Mississippi		Nibletts landing, Mississippi 41	
Lintdale landing, Missouri		Harcklerodes landing, Arkansas		Bolivar landing, Mississippi 41	
Midway landing, Missouri		Bennetts landing, Mississippi Polks landing, Mississippi		Buck Ridge landing, Mississippi 41	
Secoy landing, Arkansas		Commerce landing, Mississippi		Kentucky landing, Mississippi	
Meadows landing, Arkansas		Peters landing, Arkansas		Content landing, Mississippi	
Hoffman landing, Arkansas		Campbells landing, Arkansas		Williams landing, Arkansas	
Hickmans landing, Arkansas		Ashley Point landing, Arkansas		Franklin landing, Mississippi 42	
Wrights Point landing, Arkansas		Mhoons landing, Mississippi		Catfish Point landing, Mississippi 42	
Mouth of Obion river, Tennessee		Bordeaux Point landing, Arkansas		Good Luck landing, Arkansas 42	
Hales Point landing, Tennessee		Walnut Bend landing, Arkansas		Cypress Creek landing, Arkansas 42	
Nebraska landing, Tennessee		Smiths landing, Arkansas		Lucca landing, Arkansas 42	
Buckners landing, Arkansas		Frederick landing, Mississippi		Chicora landing, Arkansas 42	9
Snows landing, Arkansas	. 140	Austin landing, Mississippi		Chicot, Arkansas 43	
Barfield landing, Arkansas		O. K. landing, Mississippi		Eutaw landing, Mississippi 43	
Wards landing, Arkansas	. 148	Harberts landing, Mississippi	292	Jenkins landing, Mississippi 43	
O'Donnells landing, Arkansas		Sterling, Arkausas, mouth Saint Francis		Stop landing, Mississippi 43	
Ashport, Tennessee		river		Easton landing, Mississippi 43	
Mud Point landing, Tennessee		Trotter landing, Mississippi		Mound landing, Mississippi 43	
Johnsons landing, Tennessee	. 156	Helena, Arkansas	3U6	Glencoe landing, Mississippi	ď

MISSISSIPPI RIVER LANDINGS BETWEEN CAIRO AND NEW ORLEANS (DISTANCES FROM CAIRO)-Continued.

Miles.	Miles.	Miles.
Detolme landing, Mississippi 436	Sparta, or Duckport landing, Louisi-	Tarbert, Mississippi 757
Arkansas city, Arkansas 438	ana 589	Car Point landing, Louisiana 760
Offutts landing, Mississippi 444	Nebraska landing, Louisiana 591	Angola landing, Louisiana 762
Gaines landing, Arkansas 449	Youngs Point landing, Louisiana 593	Mouth of Red river, Louisiana 762
Point Comfort landing, Arkansas 454	Mouth of Yazoo river, Mississippi 594	Red River landing, Louisiana 763
Woodstock landing, Mississippi 464	Butler landing, Mississippi 594	Smiths landing, Louisiana 765
Linwood landing, Arkansas 464	Kings Point landing, Mississippi 596	Miles landing, Louisiana 765
Bellevue landing, Arkansas 465	Vicksburg, Mississippi 599	Coal landing, Louisiana 770
Luna landing, Arkansas 467	Delta, Louisiana 597	Upper Tunica landing, Louisiana 770
Columbia landing, Arkansas 469	Bedfords landing, Louisiana 606	Lower Tunica landing, Louisiana 771
Chieot landing, Arkansas	Warrenton, Mississippi	Greenwood landing, Louisiana 775
Barns landing, Mississippi	Oak Bend landing, Mississippi 609	Sebastopol, Louisiana 780
	Discound soint Mississippi 603	AND THE RESERVE OF THE PARTY OF
Greenville, Mississippi 478	Diamond point, Mississippi 611	Raccourci landing, Louisiana 782
Craigs landing, Arkansas 483	Moores landing, Louisiana	New Texas landing, Louisiana 783
Jones landing, Arkansas	Kelloggs landing, Louisiana 616	Morganza landing, Louisiana 786
Vaucluse landing, Arkansas 486	Upper New Town, Mississippi 618	Point Coupee, Louisiana 793
Sunnyside landing, Arkansas 490	Lower New Town, Louisiana 618	Bayou Sara, Louisiana 797
Refuse, Mississippi	Point Pleasant landing, Louisiana 622	Waterloo, Louisiana 803
Lakeport landing, Arkansas 495	Blands store, Louisiana 623	Hermitage landing, Louisiana 805
Island 86 landing, Arkansas 501	Buck Ridge landing, Louisiana 624	Port Hickey landing, Louisiana 808
Longwood landing, Mississippi 501	Brooks landing, Mississippi 626	Kelson landing, Louisiana 811
Lake Washington landing, Mississippi. 504	Wilsons Point landing, Louisiana 630	Highland landing, Louisiana 813
Grand Lake landing, Arkansas 510	Ship Bayou landing, Louisiana 631	Lower Springfield landing, Louisiana. 816
Leota landing, Mississippi 511	Hard Times landing, Louisiana 633	Grossmans landing, Louisiana 820
Cracraft landing, Arkansas 513	Grand Gulf, Mississippi 636	Barroza landing, Louisiana 821
Sterling landing, Arkansas 515	Whitehall landing, Mississippi 637	Lobdells landing, Louisiana 823
Carolina landing, Mississippi 516	Hardscrabble, Louisiana 640	Quornor landing, Louisiana 824
Ashton landing, Arkansas	Bruensburg landing, Mississippi 643	Point Lace landing, Louisiana 826
Pilchers Point landing, Louisiana 523		Port Allen, Louisiana
	Bondurant, Louisiana 643	
Pitmans landing, Louisiana 525	Saint Joseph, Louisiana 648	Baton Rouge, Louisiana
Bunchs landing, Louisiana 528	Rodney Ferry landing, Louisiana 651	Cinclare landing, Louisiana 835
Duncansby landing, Mississippi 529	Rodney, Mississippi 652	Missouri landing, Louisiana 837
Skipworth landing, Mississippi 530	Gilliams landing, Mississippi 654	Manchae landing, Louisiana 843
Wilsons Point landing, Louisiana 531	Beelers landing, Louisiana 655	Brooksville landing, Louisiana 847
Wilderness landing, Mississippi 531	Kemps landing, Louisiana 659	Plaquemine landing, Louisiana 851
Cottonwood landing, Louisiana 534	Waterproof, Louisiana 663	Forlorn Hope landing, Louisiana 856
Homochitta landing, Mississippi 535	Durango landing, Louisiana 668	Arcadia landing, Louisiana 857
Holly Ridge landing, Mississippi 536	Cypress Grove landing, Mississippi 669	Browns landing, Louisiana 859
Vista landing, Louisiana 536	Coles Creek landing, Mississippi 672	Dunboine landing, Louisiana 82
Longwood landing, Louisiana 537	Kings woodyard, Mississippi 674	Ophelia landing, Louisiana 802
Oakley landing, Mississippi 537	Rosedale landing, Louisiana 674	Bayon Goula landing, Louisiana 861
Reserve landing, Mississippi 537	Habbards landing, Mississippi 675	Belle Grove landing, Louisiana 867
Arlington landing, Louisiana 541	Mercer landing, Mississippi 677	Cannon Store landing, Louisiana 868
Ben Lomond landing, Mississippi 541	L'Argent, Louisiana	Hard Times landing, Louisiana 809
Lake Providence, Louisiana		Southwood landing, Louisiana 871
	Mononar landing, Louisiana 680	AND DESCRIPTION OF THE PROPERTY OF THE PROPERT
Shipland landing, Mississippi 544	Hole in Wall landing, Louisiana 680	Woodstock landing, Louisiana 875
Halls landing, Mississippi 552	Covington landing, Louisiana 680	Linwood landing, Louisiana 875
Tallula landing, Mississippi 552	Gibbons landing, Louisiana 683	Ashland landing, Louisiana 876
Bass landing, Louisiana 552	Good Hope landing, Louisiana 691-	Ascension landing, Louisiana 879
Hays landing, Mississippi 553	Stacy plantation, Louisiana 698	Evan Hall landing, Louisiana 880
Shiloh landing, Mississippi 554	Natchez, Mississippi 698	Ferry landing, Louisiana 883
Christmas landing, Mississippi 555	Vidalia, Louisiana 698	Donaldsonville, Louisiana 883
Cottonwood landing, Mississippi 556	Arnolla landing, Louisiana 700	Bateau, or Larcular landing, Louisiana 885
Arcadia landing, Mississippi 557	Whitehall landing, Louisiana 701	Whitehall landing, Louisiana 891
Wilton landing (upper), Louisiana 559	Boles Point landing, Louisiana 705	College point, Louisiana 901
Wilton landing (lower), Louisiana 560	Morville landing, Louisiana 708	Mount Airy plantation, Louisiana 913
Alsatia landing, Louisiana 561	Hutchins landing, Mississippi 713	Terre Haute plantation, Louisiana 918
Melville landing, Louisiana 562	Avalanchelanding, Mississippi 716	Bonnet Carre, Louisiana 824
Edgewood landing, Louisiana 563	Fairview landing, Louisiana	Hermitage plantation, Louisiana 900
Raleigh landing, Louisiana 564	Jacksons point, Mississippi	Prospect plantation, Louislana 1833
		Hahnville, Louisiana
Tennessee landing, Mississippi 564	Ashland landing, Louisiana	Speranza plantation, Louisiana
Pecan Grove landing, Louisiana 566	Bougeres landing, Louisiana	
Chotard landing, Mississippi 570	Union Point landing, Louisiana 740	Destraban plantation, Louisiana 937
Brunswick landing, Mississippi 573	Kienstia landing, Mississippi 740	Lone Star plantation, Louisiana 108
Henderson landing, Louisiana 573	Black Hawk landing, Louisiana 745	Kennerville, Louisiana 915
Villa Vista landing, Louisiana 574	Black Hawk Point landing, Louisiana 748	Twelve Mile point, Louisiana 949
Omega landing, Louisiana 578	Stamps landing, Mississippi 748	Jefferson, Louisiana 949
Rose Hill landing, Louisiana 579	Bartlett plantation, Mississippi 750	Nine Mile point, Louisiana 953
Millikens Bend landing, Louisiana 581	Knoxs landing, Louisiana 751	Carrollton, Louisiana 955
Cabin Teele landing, Louisiana 584	Fort Adams landing, Mississippi 753	Gretna, Louisiana 960
Forest Home landing, Mississippi 584	Point Breeze, Louisiana 756	New Orleans, Louisiana 961
Halpino landing, Mississippi 585	Langside, Mississippi 756	
***	100	

OHIO RIVER LANDINGS BETWEEN PITTSBURG AND CAIRO (DISTANCES FROM PITTSBURG).

м	iles.	Miles.	Miles.
Pittsburg, Pennsylvania	0	Newberry bar, Ohio	Palestine, Ohio
Saw Mill run, Pennsylvania	2 .	Big Hockhocking, Ohio	Buzzards roost, Ohio 454
Corks run, Pennsylvania	3	Bellville island, Ohio 202	Little Miami river, Ohio 460
Chariers creek, Pennsylvania	3	Murraysville, West Virginia 207	Jamestown, Kentucky 464
Jacks run, Pennsylvania	5	Portland, Ohio	Cincinnati, Ohio 467
Horsetail ripple, Pennsylvania	6	Ravenswood, West Virginia 219	Sedamsville, Ohio 470
Lowries ripple, Pennsylvania	7	Goose island, Ohio	McCulloms bar, Ohio 472
Dutts bar, Pennsylvania	8	Letart falls, Ohio 234	Andersons ferry, Ohio 474
Merrimans ripple, Pennsylvania	10	Grahams station, West Virginia 239	Rapid run, Ohio 477
Whites ripple, Pennsylvania	11	Hartford city, West Virginia 244	Taylorsville, Kentucky 478
Deadmans island, Pennsylvania	14	Pomeroy, Ohio	Muddy creek, Ohio 480
Flathertys run, Pennsylvania	15	Eight Mile island, Ohio	Chamberlains, Kentucky 482
Big Sewickley creek, Pennsylvania	16	Campaign creek, Ohio	Indian creek, Ohio
Little Sewickley creek, Pennsylvania.	17	Big Kanawha river, West Virginia 264	Big Miami, Ohio and Indiana boundary. 487
Logstown bar, Pennsylvania	19	Gallipolis, Ohio	Lawrenceburg, Indiana
Baden, Pennsylvania	21	Carrion ripple, Ohio	Petersburg landing, Kentucky 491
Freedom, Pennsylvania	24	Raccoon island, Ohio	Aurora, Indiana
Lacocks bar, Pennsylvania	25	Chambersburg, Ohio	Loughreys creek, Indiana
Big Beaver river, Pennsylvania	25 28	Bladensburg, Ohio	Kirbys rock, Indiana
Vanport, Pennsylvania	29	Eighteen Mile creek, Ohio	Loughreys island, Indiana
Raccoon creek, Pennsylvania	30	Green Bottom ripple, Ohio	Rising Sun, Indiana
Montgomery island, Pennsylvania	32	Millersport and Federal creek, Ohio 293	Gunpowder creek, Kentucky
Safe Harbor, Pennsylvania	32	Haskellville, Ohio	Big Boone creek, Kentucky
Shippenport, Pennsylvania	35	Dogham bar, Ohio	Goose creek, Indiana
Potts run, Pennsylvania	37	Big Guyandotte river, West Virginia 303	Patriot, Indiana
Little Beaver river, Pennsylvania	40	Symms creek, Ohio	Sugar creek, Kentucky 519
Boundary line, Pennsylvania and Ohio.	41	Buffalo creek bar, Ohio	Bryants creek, Indiana 523
Liverpool, Ohio	44	Burlington, Ohio	Warsaw, Kentucky
Wellsville, Ohio	48	Ceredo, West Virginia 312	Florence, Indiana 525
Yellow creek, Ohio	50	Catlettsburg, Kentucky 315	Craigs creek, Indiana 526
Tumblesons run, West Virginia	53	Sheridan coal works, Ohio 318	Storns creek, Indiana 527
New Cumberland, West Virginia	56	Ashland, Kentucky 320	Loglick creek, Indiana 529
Kings creek, Ohio	60	Ironton, Ohio	Vevay island, Indiana 532
Cables eddy, Ohio	64	Hanging Rock, Ohio 328	Vevay, Indiana, and Ghent, Kentucky 533
Steubenville, Ohio	68	Union landing, Ohio 330	Indian creek, Kentucky 536
Wellsburg, West Virginia	74	Greenupsburg, Kentucky	Craigs bar, Indiana 537
Beech Bottom bar, Ohio	78	Burks point, Ohio 341	Carrolton, Kentucky 541
Warrenton, Ohio	81	Pine creek, Ohio 345	Notchlick creek, Kentucky 544
Pike island, Ohio	83	Sciotoville, Ohio	Captain J. Armstrongs, Indiana 544
Burlington, Ohio	86	Tiger creek, Kentucky	Locust creek, Kentucky 545
Martinsville, Ohio	89	Portsmouth, Ohio	Indian, Indiana 546
Wheeling (creek), West Virginia	90	Turkey creek, Ohio	Eagle Hollow, Indiana
McMahons Creek bar, Ohio	94	Quincy, Kentucky	Lonesome Hollow, Indiana
Kates rock, West Virginia			Clifty creek, Indiana
Moundsville, West Virginia		Buena Vista, Ohio	Hanover landing, Indiana
Captina creek, Ohio		Vanceburg, Kentucky	Reeds landing, Indiana
Fish creek, West Virginia		Rome, Ohio	New London, Indiana 563
Sunfish creek, Ohio		Brush creek, Ohio	Big Solady creek, Indiana 565
Proctors run, West Virginia		Concord, Kentucky	Corn creek, Kentucky 567
Fishing creek, West Virginia		Wrightsville, Ohio	Bethlehem, Indiana 570
Sardis, Ohio		Manchester, Ohio 394	Westport, Kentucky 576
Whittons house, Ohio		Cabin creek, Kentucky 400	Eighteen Mile island, Indiana 578
Sisterville, West Virginia		Brooks bar, Ohio 402	Herculaneum, Kentucky 581
Matamoras, Ohio		Maysville, Kentucky 406	Fourteen Mile creek, Indiana 586
Petticoat bar, Ohio	147	Charleston bar, Ohio	Charleston landing, Indiana 587
Reas run, West Virginia	151	Ripley, Ohio 414	Twelve Mile island, Indiana 589
Saint Marys, West Virginia	155	Levana, or Dover, Ohio 416	Utica, Indiana 592
Newport, Ohio		Straight creek, Ohio 418	Six Mile island, Indiana 593
Cow creek, West Virginia		Higginsport, Ohio 422	Louisville, Kentucky 596
Carpenters bar, Ohio		Augusta, Kentucky	Jeffersonville, Indiana 596
Marietta, Ohio		Utopia, Ohio	Silver creek, Indiana 601
Briscoe run, West Virginia		Bull creek, Ohio	New Albany, Indiana
Cole island, Ohio	181	Chilo, Ohio	Middle creek, Indiana
Kanawha river, Parkersburg, West Vir-	4.1.4	Neville, Ohio	Hughes bar, Indiana
ginia	184	Fosters landing, Kentucky	Knob creek, Indiana
Blennerhassets island, foot, West Virginia	189	Point Pleasant, Ohio	Christopher crossing, Kentucky 617 Salt river, Kentucky 624
Hockingport, Ohio			New Boston, Kentucky 628
Trooping hore, Onto	101	410 ·	1 2.0. Dogwii, Rentucky

OHIO RIVER LANDINGS BETWEEN PITTSBURG AND CAIRO (DISTANCES FROM PITTSBURG)—Continued.

	Miles.		Miles.		Miles.
Otter creek, Kentucky	631	Tell city, Indiana	720	Raleigh, Kentucky	843
Tobacco landing, Kentucky	635	Troy, Indiana	724	Shawneetown, Illinois	848
Brandenburg, Kentucky	640	Lewisport, Kentucky	731	Coal banks, Illinois	850
Maucport, Indiana	643	Grandview, Indiana	736	Saline river, Illinois	857
Amsterdam, Indiana	650	Honey creek, Indiana	739	Shotwells coal bank, Illinois	859
Head of Upper Blue River island, In-		Rockport, Indiana	741	Caseyville, Kentucky	861
diana	654	Upper Yellow Bank island, head, In-		Treadwater river, Kentucky	862
Leavenworth, Indiana	658	diana	745	Weston, Kentucky	865
Fredonia, Indiana	661	Owensboro, Kentucky	749	Fords ferry, Kentucky	866
Schooner point, Indiana	664	Bonharbor, Kentucky	752	Cave in Rock, Illinois	869
Hawkins landing, Kentucky	668	Enterprise, Indiana	756	Head Big Hurricane island, Ken-	
Peckenpaws landing, Kentucky	669	Point Isabel, Indiana	758	tucky	873
Wolf creek, Kentucky	671	French island, Kentucky	760	Elizabethtown, Illinois	877
Little Blue river, Indiana	673	Pigeon creek, Indiana	766 i	Roseclair, Illinois	880
Alton, Indiana	673	Cypress creek, Inciana	768	Carrsville, Kentucky	882
Reno, Indiana	677	Newburg, Indiana	770	Golconda, Illinois	890
Hatfields house, Kentucky	679	Green river, Kentucky	775	Prior island, Kentucky	893
Concordia, Kentucky	681	Evansville, Indiana	783	Head Sisters island, Kentucky	
Davis landing, Indiana	682	Henderson, Kentucky	795	Bay city, Illinois	899
Oil creek, Indiana	686	Henderson, Indiana	796	Head Stewarts island, Illinois	901
Derby, Indiana	687	West Franklin, Indiana	808	Head Dry island, Illinois	
Yellow Bank creek, Kentucky	690	Diamond island, foot, Indiana Mount Vernon, Indiana	812	Smithland, Kentucky	
Shenautts Reach, foot, Kentucky	692	,	819 822	Pull Tight, or West Liberty, Ken- tucky	
Steavens port, Kentucky	695	Slim island, head, Indiana	826	Paducah, Kentucky	
Holts bar, Kentucky	697 698	Louisiana rocks, Kentucky	831	Brooklyn, Illinois	
Gregorys, Kentucky	703	Uniontown, Kentucky	833	Metropolis, Illinois	
Cloverport, Kentucky	705	Lower Highland rocks, Kentucky	834	Hillermans, Illinois	
Faucetts creek, Indiana	706	Head Wabash island, Indiana	836	Caledonia, Illinois	
Nillston creek, Indiana	711	Wabash river, Illinois and Indiana		Mound city, Illinois	
Rock island, Kentucky	713	boundary	838	Cairo, mouth of Ohio river, Illinois	
Hawsville, Kentucky	717	Fort Wabash island, Indiana	841	·	•••
MISSOURI RIVER LANDING Saint Louis, Missouri	S BET	WEEN SAINT LOUIS AND FORT BE		(DISTANCES FROM SAINT LOUIS). Round Butte, Montana	
Mouth of Missouri, Missouri	20	Standing Rock agency, South Dakota		.Trover Point, Montana	-
Jefferson city, Missouri	164	Fort Yates, North Dakota		Mussellshell river, Montana	
Glasgow, Missouri	212	Fort Rice, North Dakota	1 .	Fort Hawley, Montana	
Lexington, Missouri	337	Fort Lincoln, North Dakota		Carroll, Montana	
Kansas city, Missouri	405	Bismarck, North Dakota		Little Rocky, Montana	
Leavenworth, Kansas	438	Mandan, North Dakota		Harrietts island, Montana	
Saint Joseph, Missouri	501	Fort Stevenson, North Dakota	1,724	Two Calf island, Montana	
Omaha, Nebraska	686	Port Berthold, North Dakota	1, 749	Cow island, Montana	2, 508
Sioux city, Iowa	861	White Earth river, North Dakota	1,869	Buds rapids, Montana	
Vermilion, Kansas	953	Fort Buford, North Dakota	1, 994	Dauphins rapids, Montana	2, 538
Yankton, South Dakota		Mouth of Yellowstone, North Dakota.		Fort Claggett, Montana	2, 561
Fort Randall, South Dakota		Mouth of Little Muddy, Montana		Drowned Mans rapids, Montana	2,563
Brule city, South Dakota		Mouth of Big Muddy, Montana		Arrowhead, Montana	
Brule agency, South Dakota		Mouth of Poplar creek, Montana		Steamboat rock, Montana	
Fort Hale, South Dakota		Spread Eagle, Montana		Hole in the Wall, Montana	•
Fort Thompson, South Dakota	•	Wolf Creek agency, Montana		Citadel rock, Montana	,
Head of Big Bend, South Dakota		Porcupine creek, Montana		Eagle creek, Montana	
Old Fort Pierre, South Dakota		Milk river, Montana	•	Coal banks, Montana	
Black Hills landing, South Dakota		Fort Copelin, Montana		Fort Assinaboine landing, Montana	
Fort Sully, South Dakota	•	Fort Peck, Montana		Mouth of Marias river, Montaua	
Cheyenne agency, South Dakota Fort Bennett, South Dakota		Bouches Grave, Montana	2, 267	Fort Benton, Montana	2,663
		VEEN FORT BUFORD AND LITTLE	BIG H	ORN (DISTANCES FROM FORT BITE	ORD).
					•
Fort Buford, North Dakota	0	Tongue river, Montana	237	Bighorn, Montana	
Glendive, Montana	148	Fort Keogh, Montana	237	Little Bighorn, Montana	. 398
Powder river, Montana	200	Rosebud, Montana	274	1	
				·	

STATISTICS OF TRANSPORTATION ON THE RIVERS OF THE MISSISSIPPI VALLEY.

TABLE 1.—EQUIPMENT.

NUMBER, TONNAGE, AND VALUE OF ALL STEAMERS AND UNRIGGED CRAFT (OVER 5 TONS) OWNED ON THE RIVERS OF THE MISSISSIPPI VALLEY IN 1889.

		TOTAL.			STEAMERS.		UNRIGGED.			
RIVERS.	Number.	Tonnage.	Value.	Number.	Tonnage.	Value.	Number.	Tonnage.	Value.	
Total for Mississippi valley	7, 453	3, 393, 379. 89	\$15, 835, 005	1, 114	210, 771. 89	\$ 10, 539, 251	6, 339	3, 182, 608, 00	\$4, 795, 754	
Upper Mississippi	473	190, 663. 21	1, 699, 387	188	24, 978. 21	1, 485, 369	285	165, 685, 00	214, 018	
Saint Croix	26	11, 258. 35	110,000	15	1, 258. 35	99,000	11	10, 000, 00	11,000	
Chippewa	1	108.00	7,000	1	108.00	7, 000		••		
Illinois	9	1, 860. 25	80, 200	9	1, 860. 25	80, 200	 	• • • • • • • • • • • • • • • • • • • •		
Missouri, Osage, and Gasconade	104	9, 657: 84	240, 405	52	4, 759. 84	209, 700	52	4, 898. 00	30, 705	
Total for Upper Mississippi system.	613	213, 547. 65	2, 136, 992	265	32, 964. 65	1, 881, 269	34,8	180, 583. 00	255, 723	
Ohio	4, 868	2, 440, 881. 62	6, 957, 513	380	85, 035. 62	4, 099, 177	4, 488	2, 355, 846. 00	2, 858, 336	
Allegheny	32	3, 055. 84	63, 400	6	715.84	53, 000	26	2, 340. 00	10, 400	
Monongahela	158	22, 887. 15	449, 700	48	6, 234. 15	419, 600	110	16, 653, 00	30, 100	
Muskingum	79	8, 370. 79	53, 515	7	567. 79	25, 050	72	7, 803, 00	28, 465	
Little Kanawha	53	4, 972. 18	30,000	5	228. 18	18,000	48	4, 744, 00	12,000	
Great Kanawha	893	412, 366. 13	645, 038	21	2, 386. 13	123, 333	872	409, 980, 00	521, 705	
Big Sandy	17	3, 937, 67	44, 000	8	787. 67	40,000	11 9	3, 150, 00	4,000	
Kentucky	8	539. 31	22, 100	5	374. 31	21,000	3	165. 00	1,100	
Green	5	316. 68	13, 500	5 ,	316. 6 8	13, 500	1			
Wabash	3	297. 00	10,000	3	297. 00	10,000	į			
Cumberland	37	4, 805. 57	113, 600	17	2, 935. 57	109, 300	20	1, 870. 00	4,300	
Tennessee	92	18, 038. 89	293, 975	32	7, 316. 89	260, 750	60	10, 722. 00	33, 225	
Total for Ohio system	6, 245	2, 920, 468. 83	8, 696, 341	537	107, 195. 83	5, 192, 710	5, 708	2, 813, 273. 00	3, 503, 631	
Lower Mississippi	515	237, 986. 07	4, 153, 622	265	62, 476. 07	3, 152, 372	250	175, 510. 00	1, 001, 250	
White	6	1, 269. 71	45, 100	5	1, 229. 71	45, 000	1	40.00	100	
Arkansas	22	2, 408. 73	. 67, 600	15	2, 098. 73	66, 200	7	310.00	1,400	
Yazoo	20	3, 079. 68	79, 450	11	1, 409. 68	62, 000	9.	1, 670. 00	17, 450	
Washita	3	994. 52	45, 000	8	994. 52	45, 000				
Red	14	2, 218. 88	85, 700	9	1, 968. 88	80, 700	5	250. 00	5, 000	
Total for Lower Mississippi system.	580	247, 957. 59	4, 476, 472	308	70, 177. 59	3, 451. 272	272	177, 780. 00	1, 025, 200	
Red River of the North	15	11, 405. 82	25, 200	4	433. 82	14, 000	11	10, 972. 00	11, 200	

TABLE 2.—EQUIPMENT BY CLASSES.

NUMBER, TONNAGE, AND VALUE OF ALL VESSELS (OVER 5 TONS), BY CLASSES, AND OWNED ON THE RIVERS OF THE MISSISSIPPI VALLEY IN 1889.

rivers.	Classes.	Number of vessels in each class.	Tonnage.	Value.
Total for Mississippi valley.		7, 453	3, 393, 379. 89	\$15, 335, 00
UPPER MISSISSIPPI SYSTEM.	:			
pper Mississippi	Passenger and freight	23	5, 732, 91	281, 70
	Towing	77	9, 736. 51	621. at
	Ferry	24	2, 144. 39	170, 20
	Harbor	25	994. 26	62. 23
	Miscellaneous	10	1, 999. 75	139, 8
	No traffic report	29	4, 370. 39	209. 6
	Unrigged	285	165. 685. 00	214, 01
Total	•	473	190, 663, 21	1, 699, 3
Saint Croix	Towing	10	1, 129. 82	88, 5
	Ferry	'	26.98	3.00
	Harbor	4	101.55	7, 5
	Unrigged	11	10, 000. 00	11.0
Total		26	11. 258. 35	110.00
Chippewa	Towing	1	108.00	7.00
Illinois	Passenger and freight	7	1, 811, 80	79, 20
	Ferry	. 2 i	48. 45	1, 00
Total		9	- 1, 860. 25	80, 20
Missouri, Osage, and Gasconade	Passenger and freight			~
attoouti, mage, and tranconade	Towing and harbor	15	2, 458, 85	70. 34 41. 70
	Ferry.	10 24	573. 37 1, 685. 49	94, 10
	Unrigged	32	4, 898. 00	30.70
•	No traffic report	3	42.13	3,6
Total		104	9, 657. 84	240, 40
Total for Upper Mississippi system				2, 136, 99
OHIO SYSTEM.		613	213, 547. 65	
		. 1		
Ohio	Passenger and freight.	85	32, 688, 82	1, 209. 8
	Towing	114	26, 708. 08	1, 680, 60
	Harbor	54	10. 918. 00	350. 25 301. 00
	Miscellaneous	48 25	4, 275, 11 2, 978, 83	160, 20
	Unrigged	4,488	2, 355, 846. 00	2, 858, 33
	No traffic report	54	7, 466, 78	388, 30
Total		4, 868	2, 440, 881, 62	6, 957, 51
Allegheny	Passenger and freight	6	713.84	53, 00
	Unrigged		2, 340. 00	10.40
Total		32	3, 055, 84	63, 44
Monongaliela	Passenger and freight		1 421 40	73, 700
· ·	Towing	8 ' 25	1, 471. 48 3, 441. 97	246, 700
	Ferry	3	263. 39	13, (0)
	Miscellaneous	12	1, 057. 31	82, 200
	Unrigged	110	16, 653. 00	30, 100
Total		158	22, 887. 15	449,70)
	Passenger and freight	4	333, 35	16, 750
Muskingum	Towing	2	219. 35	7, 000
Muskingum		-	15. 09	1, 300
Muskingum	Harbor	1		
Muskingum	1	1 72	7, 803. 00	28, 465
Muskingum Total	Harbor			28, 465 53, 515
·	Harbor Unrigged	72	7, 803. 00	
Total	Harbor Unrigged	72	7, 803. 00 8, 370. 79	53, 515
Total	Harbor Unrigged Passenger and freight	72 79 2	7, 803, 00 8, 370, 79 143, 56	53, 515 10, 600
Total	Harbor Unrigged Passenger and freight Towing	72 79	7, 803. 00 8. 370. 79 143. 56 34. 93	53, 515 10, 660 4, 600

TABLE 2.—EQUIPMENT BY CLASSES—Continued.

NUMBER, TONNAGE, AND VALUE OF ALL VESSELS (OVER 5 TONS), BY CLASSES, AND OWNED ON THE RIVERS OF THE MISSISSIPPI VALLEY IN 1889—Continued.

RIVERS.	Classes.	Number of vessels in each class.	Tonnage.	Value.
OHIO SYSTEM—Continued.				
Ohio—Continued. Great Kanawha	Degrammen and Speigle	_	427. 55	\$23, 50 0
Great Ashawna	Passenger and freight	5 4	692.66	39, 333
	Harbor	6	822. 49	41,000
	Ferry	2	102.47	8, 000
	Miscellaneous	2	58.78	3, 500
	Unrigged	872	409, 980. 00	521, 705-
	No traffic report	2	282. 18	8, 000
Total	•	893	412, 366. 13	645, 038
Big Sandy	Passenger and freight	5	443. 65	16, 000
Dig sandy	Harbor	3	344.02	24,000
	Unrigged	9	3, 150. 00	4,000
Total	••••	17	3, 937. 67	44,000
Kentucky	Passenger and freight	3	246. 52	15, 000
	Towing	1 1	77.88	4,000
	Unrigged	3	165.00	1, 100
	No traffic report	1	49. 91	2, 000
Total	•••••	8	539. 31	22, 100
Green	Passenger and freight	5	316. 68	13, 500
Wabash	Passenger and freight No traffic report	2	243. 33 53. 67	7, 500 2, 500
Total	·		297. 00	10, 000
				— — <u>—</u>
Cumberland	Passenger and freight	13	2, 631. 48	100, 800
	Towing	20	304. 09 1, 870, 00	8, 500 4, 300
Total		37	4, 805. 57	113, 600
Tennessee	Passenger and freight	23	5, 851, 24	210, 500
2011103000	Towing	6	1, 183. 71	46, 250
	Ferry	2	259. 67	3, 000
	Unrigged	60	10, 722. 00	33, 225
	No traffic report	-1	22. 27	1,000
Total		92	18, 038, 89	293, 975
Total for Ohio system		6, 245	2, 920, 468, 83	8, 696, 341
IOWED MISSISSIDDI SVSTEM			·	
LOWER MISSISSIPPI SYSTEM.	Passan any and facialt	74	31, 898, 33	1, 186, 300
Lower Mississippi	Passenger and freight Towing	1 1	9, 665. 18	627, 600
	Harbor	53	12, 403. 80	588, 300
·	Ferry	45	2, 831. 74	392, 200
	Miscellaneous	11	599. 93	70, 350
	Unrigged	250	175, 510. 00	1, 001, 250
	No traffic report	47	5, 077. 09	287, 622
Total		515	237, 986, 07	4, 153, 622
White	Passenger and freight	5	1, 229. 71	45, 000
1	Unrigged		40. 00	100
Total	······	6	1, 269. 71	45. 100
Arkansas	Passenger and freight	9	1, 785. 91	46, 700
	Ferry	6	312. 82	19, 500
	Unrigged	7	310.00	1, 400
Total		22	2, 408. 73	67, 600
Yazoo.	Passenger and freight	11	1, 409. 68	62, 000
X 8200			2, 223, 50	35, 000
1 azoo	Unrigged	. 9	1, 670. 00	17, 450

TABLE 2.—EQUIPMENT BY CLASSES—Continued.

NUMBER, TONNAGE, AND VALUE OF ALL VESSELS (OVER 5 TONS), BY CLASSES, AND OWNED ON THE RIVERS OF THE MISSISSIPPI VALLEY IN 1889—Continued.

RIVERS.	. Classes.	Number of vessels in each class.	Tonnage.	Value.
LOWER MISSISSIPPI SYSTEM—Continued.				
Lower Mississippi—Continued.		i l		
Washita	Passenger and freight	3	994. 52	\$4 5, 000
Red	Passenger and freight	9	1, 968, 88	
	Unrigged	5	250.00	5, 000
Total		14	2. 218. 88	85, 700
Total for Lower Mississippi system		580	247, 957. 59	4, 476, 472
RED RIVER OF THE NORTH.				
Red River of the North	Freight	3	411, 17	12, 500
	Unrigged	h 1	10, 972. 00	11, 200
	No traffic report	1 1	22. 65	1, 500
Total	 	15	11, 405. 82	25, 200

TABLE 3.—EQUIPMENT BY TONNAGE GROUPS.

NUMBER AND TONNAGE OF ALL STEAMERS (OVER 5 TONS) DOCUMENTED IN CUSTOMS DISTRICTS OF THE MISSISSIPPI VALLEY IN 1889, GIVEN BY TONNAGE GROUPS FOR EACH DISTRICT. (a)

	TOTAL.			5 TO 50 TONS.		50 T	o 100 tons		100 TO 200 TONS.		
CUSTOMS DISTRICTS.	Number.	Tons.	· N	amber.	Tons.	Number.	Ton	s. Nu	ımber.	Tons.	
Total	1, 114	209, 82	6, 07	270	7, 933, 26	261	19,	344. 92	295	42, 601, 4	
New Orleans, Louisiana	126	19, 24	8. 58	35	1, 199, 49	37	2,	667, 20	27	3, 822, 5	
Natchez, Mississippi	4	59	2. 35	1	44. 49	1	1	72. 71	1	186. 0	
Vicksburg, Mississippi	30	2,87	5, 99	10	257, 90	11	1	815. 67	5	634, 30	
Memphis, Tennessee	71	12, 11	3. 76	24	645.00	16		144. 57	12	1, 808, 0	
Chattanooga, Tennessee	22	3,96	6. 09	5	180, 21	1	1	63, 01	8	1. 224, 1	
Paducah, Kentucky	53	8, 78	1. 24	17	573. 29	9		643. 73	11	1, 518. 4	
Louisville, Kentucky	52	11, 93	7. 92	9	286, 67	13	1	935. 54	15	2, 266. 0	
Saint Louis, Missouri	115	42, 82	7. 04	23	646, 72	19	1.	525, 42	12	1, 695, 1	
Kansas city, Missouri	16	1, 78	- 11	4	110.01	7	1	547, 58	4	613. 3	
Saint Joseph, Missouri	6	· · · · · · · · · · · · · · · · · · ·	0. 53	3	84, 56	2	F.	153, 53	1	102. 4	
Omaha, Nebraska	13	1, 32	- 11	4	70, 51	6		370, 62			
Burlington, Iowa	43	5, 05	12	10	366, 43	11		786. 81	18	2, 881. 36	
Dubuque, Iowa	28	6, 35	- 11	6	129, 83	6	ŀ	448, 61	7	1, 091, 18	
Minnesota (b)	46	5, 21	il.	16	409, 66	6	1	447. 47	18	2, 603. 0	
Lacrosse, Wisconsin	47	3, 88	- 11	16	441.95	15	1	187. 58	16	2, 254, 50	
Galena, Illinois	27	3, 12	11	4	130.06	. 5	1	366, 20	18	2, 633. 34	
Evansville, Indiana	54	6, 95	- 11	23	565, 31	12	1	904. 84	10	1, 392, 7	
Cincinnati, Ohio	I	31, 40	11	21	601. 05	24	1	713, 40	30	4, 412, 2	
Wheeling, West Virginia	94	9, 76	. 11	22	703, 87	36		897. 50	27	3, 884. 94	
Pittsburg, Pennsylvania		32, 26	12	17	486, 25	24	1	852, 93	55	7, 577. 47	
CUSTOMS DISTRICTS.	<u> </u>						ll .		il		
	Number.	Tons.	Number.	Tons.	Number.	Tons.	Number.	Tons.	Number	Tons.	
Total	Number.	Tons. 22, 746. 92	Number.	Tons	Number.	Tons.	Number.	Tons. 49, 025, 68	Number 23		
	92	22, 746. 92	74	25, 481, 02	28	12, 528. 88	. 71	49, 025, 68	23	30, 163, 97	
New Orleans, Louisiana	92	22, 746, 92 2, 918, 50							·	30, 163, 97	
New Orleans, Louisiana	92	22, 746, 92 2, 918, 50 289, 12	74	25, 481. 02 2, 485. 90	28	12, 528. 88	. 71	49, 025, 68	23	30, 163, 97	
New Orleans, Louisiana	92 12 1 2	22, 746 . 92 2, 918 . 50 289. 12 473. 91	74	25, 481, 02 2, 485, 90 694, 15	28	12, 528. 88 966. 07	. 71	49, 025, 68	23	30, 163, 97 2, 058, 98	
New Orleans, Louisiana	92 12 1 2 5	22, 746, 92 2, 918, 50 289, 12 473, 91 1, 190, 59	74 7	25, 481, 02 2, 485, 90 694, 15 1, 715, 58	28	12, 528. 88	. 71	49, 025, 68 3, 129, 85 3, 615, 34	23	30, 163, 97 2, 058, 98	
New Orleans, Louisiana	92 12 1 2 5 4	22, 746, 92 2, 918, 50 289, 12 473, 91 1, 190, 59 912, 32	74	25, 481, 02 2, 485, 90 694, 15 1, 715, 58 1, 021, 08	28	12, 528. 88 966. 07	. 71	49, 025, 68 3, 129, 85 3, 615, 34 565, 34	23	30, 163, 97 2, 058, 98	
New Orleans, Louisiana	92 12 1 2 5 4 5	22, 746, 92 2, 918, 50 289, 12 473, 91 1, 190, 59 912, 32 1, 203, 66	74 7 2 5 3 7	25, 481, 02 2, 485, 90 694, 15 1, 715, 58 1, 021, 08 2, 319, 73	28	12, 528. 88 966. 07 934. 93	, 71 4	49, 025, 68 3, 129, 85 3, 615, 34 565, 34 2, 055, 23	23 2	30, 163, 97 2, 058, 96 1, 059, 71	
New Orleans, Louisiana Natchez, Mississippi Vicksburg, Mississippi Memphis, Tennessee Chattanooga, Tennessee Paducah, Kentucky Louisville, Kentucky	92 12 1 2 5 4 5	22, 746, 92 2, 918, 50 289, 12 473, 91 1, 190, 59 912, 32	74 7 2 5 3	25, 481, 02 2, 485, 90 694, 15 1, 715, 58 1, 021, 08	28	12, 528. 88 966. 07 934. 93 467. 17	. 71 4 6 1	49, 025, 68 3, 129, 85 3, 615, 34 565, 34	23	30, 163, 97 2, 058, 96 1, 050, 77	
New Orleans, Louisiana Natchez, Mississippi Vicksburg, Mississispi Memphis, Tennessee Chattanooga, Tennessee Paducah, Kentucky Louisville, Kentucky	92 12 1 2 5 4 5	22, 746, 92 2, 918, 50 289, 12 473, 91 1, 190, 59 912, 32 1, 203, 66 491, 78	74 7 2 5 3 7 7	25, 481, 02 2, 485, 90 694, 15 1, 715, 58 1, 021, 08 2, 319, 73 2, 417, 12	28 2 2 2 1 1 1 1	12, 528. 88 966. 07 934. 93 467. 17 438. 17	6 1 3 4	49, 025, 68 3, 129, 85 3, 615, 34 565, 34 2, 065, 23 3, 054, 25	23 2 1 1	30, 163, 97 2, 058, 96 1, 050, 77	
New Orleans, Louisiana Natchez, Mississippi. Vicksburg, Mississispi Memphis, Tennessee. Chattanooga, Tennessee Paducah, Kentucky Louisville, Kentucky Saint Louis, Missouri Kansas city, Missouri	92 12 1 2 5 4 5 2 8	22, 746, 92 2, 918, 50 289, 12 473, 91 1, 190, 59 912, 32 1, 203, 66 491, 78	74 7 2 5 3 7 7	25, 481, 02 2, 485, 90 694, 15 1, 715, 58 1, 021, 08 2, 319, 73 2, 417, 12	28 2 2 2 1 1 1 1	12, 528. 88 966. 07 934. 93 467. 17 438. 17	. 71 4 6 1 3 4 18	49, 025, 68 3, 129, 85 3, 615, 34 565, 34 2, 055, 23 3, 054, 25 11, 870, 81	23 2 1 1	30, 163, 97 2, 058, 98 1, 050, 71	
New Orleans, Louisiana Natchez, Mississippi. Vicksburg, Mississippi Memphis, Tennessee. Chattanooga, Tennessee. Paducah, Kentucky Louisville, Kentucky Saint Louis, Missouri Kansas city, Missouri	92 12 1 2 5 4 5 2 8	22, 746, 92 2, 918, 50 289, 12 473, 91 1, 190, 59 912, 32 1, 203, 66 491, 78 2, 002, 36	74 7 2 5 3 7 7	25, 481. 02 2, 485. 90 694. 15 1, 715. 58 1, 021. 08 2, 310. 73 2, 417. 12 4, 376. 21	28 2 2 2 1 1 1 1	12, 528. 88 966. 07 934. 93 467. 17 438. 17	. 71 4 6 1 3 4 18	49, 025, 68 3, 129, 85 3, 615, 34 565, 34 2, 065, 23 3, 054, 25 11, 870, 81 510, 43	23 2 1 1	30, 163, 97 2, 058, 98 1, 050, 71	
New Orleans, Louisiana Natchez, Mississippi. Vicksburg, Mississippi Memphis, Tennessee. Chattanooga, Tennessee. Paducah, Kentucky. Louisville, Kentucky Saint Llouis, Missouri Kansas city, Missouri Saint Joseph, Missouri	92 12 1 2 5 4 5 2 8	22, 746, 92 2, 918, 50 289, 12 473, 91 1, 190, 59 912, 32 1, 203, 66 491, 78	74 7 2 5 3 7 7	25, 481, 02 2, 485, 90 694, 15 1, 715, 58 1, 021, 08 2, 319, 73 2, 417, 12	28 2 2 2 1 1 1 1	12, 528. 88 966. 07 934. 93 467. 17 438. 17	. 71 4 6 1 3 4 18	49, 025, 68 3, 129, 85 3, 615, 34 565, 34 2, 065, 23 3, 054, 25 11, 870, 81 510, 43	23 2 1 1	30, 163, 97 2, 058, 96 1, 050, 77	
New Orleans, Louisiana Natchez, Mississippi. Vicksburg, Mississippi Memphis, Tennessee. Chattanooga, Tennessee. Paducah, Kentucky Louisville, Kentucky Saint Louis, Missouri Kansas city, Missouri	92 12 1 2 5 4 5 2 8	22, 746, 92 2, 918, 50 289, 12 473, 91 1, 190, 59 912, 32 1, 203, 66 491, 78 2, 002, 36	74 7 2 5 3 7 7 12	25, 481, 02 2, 485, 90 694, 15 1, 715, 58 1, 021, 08 2, 319, 73 2, 417, 12 4, 376, 21	28 2 2 2 1 1 1 1	12, 528. 88 966. 07 934. 93 467. 17 438. 17	. 71 4 6 1 3 4 18	49, 025, 68 3, 129, 85 3, 615, 34 565, 34 2, 065, 23 3, 054, 25 11, 870, 81 510, 43	23 2 1 1	30, 163, 97 2, 058, 98 1, 059, 77 2, 048, 34 15, 414, 25	
New Orleans, Louisiana Natchez, Mississippi. Vicksburg, Mississippi Memphis, Tennessee. Chattanooga, Tennessee. Paducah, Kentucky. Louisville, Kentucky Saint Louis, Missouri Kansas city, Missouri Saint Joseph, Missouri Omaha, Nebraska Burlington, Iowa	92 12 1 2 5 4 5 2 8	22, 746, 92 2, 918, 50 289, 12 473, 91 1, 190, 59 912, 32 1, 203, 66 491, 78 2, 002, 36	74 7 2 5 3 7 7 12	25, 481, 02 2, 485, 90 694, 15 1, 715, 58 1, 021, 08 2, 319, 73 2, 417, 12 4, 376, 21 352, 31 312, 75	28 2 2 1 1 1 1 1 1 1 2	12, 528, 88 966, 07 934, 93 467, 17 438, 17 5, 287, 10	6 1 3 4 188 1 1	49, 025, 68 3, 129, 85 3, 615, 34 565, 34 2, 055, 23 3, 054, 25 11, 879, 81 510, 43	23 2 1 	30, 163, 97 2, 058, 98 1, 059, 71 2, 048, 34 15, 414, 26	
New Orleans, Louisiana Natchez, Mississippi Vicksburg, Mississippi Memphis, Tennessee. Chattanooga, Tennessee. Paducah, Kentucky Louisville, Kentucky Saint Louis, Missouri Kansas city, Missouri Saint Joseph, Missouri Omaha, Nebraska Burlington, Iowa Dubuque, Iowa	92 12 1 2 5 4 5 2 8	22, 746, 92 2, 918, 50 289, 12 473, 91 1, 190, 59 912, 32 1, 203, 66 491, 78 2, 002, 36 536, 11 712, 02 723, 95	74 7 2 5 3 7 7 12	25, 481, 02 2, 485, 90 694, 15 1, 715, 58 1, 021, 08 2, 319, 73 2, 417, 12 4, 376, 21 352, 31 312, 75 673, 57	28 2 2 1 1 1 1 1 1 1 2	12, 528, 88 966, 07 934, 93 467, 17 438, 17 5, 287, 10	6 1 3 4 188 1 1	49, 025, 68 3, 129, 85 3, 615, 34 565, 34 2, 055, 23 3, 054, 25 11, 879, 81 510, 43	23 2 1 	30, 163, 97 2, 058, 98 1, 059, 77 2, 048, 34 15, 414, 25	
New Orleans, Louisiana Natchez, Mississippi Vicksburg, Mississippi Memphis, Tennessee. Chattanooga, Tennessee. Paducah, Kentucky Louisville, Kentucky Saint Louis, Missouri Kansas city, Missouri Saint Joseph, Missouri Omaha, Nebraska Burlington, Iowa Dubuque, Iowa Minnesota.	92 12 1 2 5 4 5 2 8	22, 746, 92 2, 918, 50 289, 12 473, 91 1, 190, 59 912, 32 1, 203, 66 491, 78 2, 002, 36 536, 11 712, 02 723, 95	74 7 2 5 3 7 7 12	25, 481, 02 2, 485, 90 694, 15 1, 715, 58 1, 021, 08 2, 319, 73 2, 417, 12 4, 376, 21 352, 31 312, 75 673, 57	28 2 2 1 1 1 1 1 1 1 2	12, 528, 88 966, 07 934, 93 467, 17 438, 17 5, 287, 10	6 1 3 4 188 1 1	49, 025, 68 3, 129, 85 3, 615, 34 565, 34 2, 055, 23 3, 054, 25 11, 879, 81 510, 43	23 2 1 	30, 163, 97 2, 058, 98 1, 059, 77 2, 048, 34 15, 414, 25	
New Orleans, Louisiana Natchez, Mississippi. Vicksburg, Mississippi Memphis, Tennessee. Chattanoga, Tennessee. Paducah, Kentucky Louisville, Kentucky Saint Louis, Missouri Kansas city, Missouri Saint Joseph, Missouri Omaha, Nebraska Burlington, Iowa Dubuque, Iowa Minnesota. Lacrosse, Wisconsin. Galena, Illinois.	92 12 1 2 5 4 5 2 8	22, 746, 92 2, 918, 50 289, 12 473, 91 1, 190, 59 912, 32 1, 203, 66 491, 78 2, 002, 36 536, 11 712, 02 723, 95	74 7 2 5 3 7 7 12	25, 481, 02 2, 485, 90 694, 15 1, 715, 58 1, 021, 08 2, 319, 73 2, 417, 12 4, 376, 21 352, 31 312, 75 673, 57 1, 013, 54	28 2 2 1 1 1 1 1 1 1 2	12, 528, 88 966, 07 934, 93 467, 17 438, 17 5, 287, 10	6 1 3 4 188 1 1	49, 025, 68 3, 129, 85 3, 615, 34 565, 34 2, 055, 23 3, 054, 25 11, 879, 81 510, 43	23 2 1 	30, 163, 97 2, 058, 98 1, 059, 77 2, 048, 34 15, 414, 25	
New Orleans, Louisiana Natchez, Mississippi. Vicksburg, Mississippi Memphis, Tennessee. Chattanooga, Tennessee. Paducah, Kentucky Louisville, Kentucky Saint Louis, Missouri Kansas city, Missouri Saint Joseph, Missouri Omaha, Nebraska Burlington, Iowa Dubuque, Iowa Minnesota. Lacrosse, Wisconsin	92 12 1 2 5 4 5 2 8	22, 746, 92 2, 918, 50 289, 12 473, 91 1, 190, 59 912, 32 1, 203, 66 491, 78 2, 002, 36 536, 11 712, 02 723, 95 739, 88	74 7 2 5 3 7 7 12 1 1 1 2 3	25, 481, 02 2, 485, 90 694, 15 1, 715, 58 1, 021, 08 2, 319, 73 2, 417, 12 4, 376, 21 352, 31 312, 75 673, 57	28 2 2 1 1 1 1 1 1 1 2	12, 528, 88 966, 07 934, 93 467, 17 438, 17 5, 287, 10	6 1 3 4 18 1 1 2 2	49, 025, 68 3, 129, 85 3, 615, 34 565, 34 2, 055, 23 3, 054, 25 11, 879, 81 510, 43	23 2 1 	30, 163, 97 2, 058, 98 1, 059, 71	
New Orleans, Louisiana Natchez, Mississippi. Vicksburg, Mississippi Memphis, Tennessee. Chattanooga, Tennessee. Paducah, Kentucky Louisville, Kentucky Saint Louis, Missouri Kansas city, Missouri Saint Joseph, Missouri Omaha, Nebraska Burlington, Iowa Dubuque, Iowa Minnesota. Lacrosse, Wisconsin. Galena, Illinois. Evansville, Indiana	92 12 1 2 5 4 5 2 8	22, 746, 92 2, 918, 50 289, 12 473, 91 1, 190, 59 912, 32 1, 203, 66 491, 78 2, 002, 36 536, 11 712, 02 723, 95 739, 88	74 7 2 5 3 7 7 12 1 1 2 3	25, 481, 02 2, 485, 90 694, 15 1, 715, 58 1, 021, 08 2, 319, 73 2, 417, 12 4, 376, 21 352, 31 312, 75 673, 57 1, 013, 54	28 2 2 1 1 1 1 1 1 2 1 1 1 1 1 1 1 1 1 1	12, 528, 88 966, 07 934, 93 467, 17 438, 17 5, 287, 10	6 1 3 4 18 1 2 2	49, 025, 68 3, 129, 85 3, 615, 34 565, 34 2, 055, 23 3, 054, 25 11, 870, 81 510, 43 1, 340, 05	23 2 1 1 1 11 11	30, 163, 97 2, 058, 98 1, 059, 71 2, 048, 34 15, 414, 28	

 $[\]boldsymbol{a}$ Compiled from reports furnished by commissioner of navigation.

b Comprising the ports of Saint Vincent and Saint Paul.

TABLE 4.—INCOME AND EXPENDITURE.

GROSS EARNINGS, EXPENSES, AND NET EARNINGS OF ALL STEAMERS (OVER 5 TONS) OPERATING ON THE RIVERS OF THE MISSISSIPPI VALLEY IN 1889. (a)

RIVERS.	Gross earnings.	Ехрепнен.	Net earnings
Total for Mississippi valley	\$16, 337, 533	\$12, 600, 342	\$3, 737, 191
Upper Mississippi	1. 994. 786	1, 403, 746	591, 040
Saint Croix	169, 184	93, 703	75, 481
Chippewa	18, 244	9, 844	8, 400
Illinois	135, 801	114, 047	21, 754
Missouri, Osage, and Gasconade	294, 470	229, 477	64, 993
Total for Upper Mississippi system	2, 612, 485	1, 850, 817	761, 668
Ohio	5, 070, 654	4, 000, 777	1, 069, 877
Allegheny	20, 630	18, 449	2, 181
Monongahela	496, 930	398, 861	28, 069
Muskingum	55, 482	40, 589	14, 893
Little Kanawha	30, 921	17, 343	13, 578
Great Kanawha	193, 006	139, 677	53, 329
Big Sandy	94, 918	69, 879	25, 039
Kentucky	58. 821	33, 866	24, 955
Green	31, 889	27, 154	4. 735
Wabash	42, 320	22, 140	20, 180
Cumberland	205, 636	170, 939	34, 697
Tennessee	400, 806	330, 893	69. 913
Total for Ohio system	6, 702. 013	5, 270, 567	1, 431, 446
Lower Mississippi	6, 236, 310	4, 849, 939	1, 386, 371
White	100, 697	82, 443	18, 254
Arkansas	86, 383	56, 549	29, 834
Yazoo	144, 068	125, 469	18, 599
Washita	125, 180	103, 220	21, 960
Red	324, 736	257, 092	67, 644
Total for Lower Mississippi system	7, 017, 374	5, 474, 712	1. 542, 662
Red River of the North	5, 661	4, 246	1.415

a The expense accounts of the barges, flats, and other unrigged are included, wherever practicable, in those of the towing steamers.

TABLE 5.—INCOME AND EXPENDITURE BY CLASSES.

GROSS EARNINGS, EXPENSES, AND NET EARNINGS OF ALL STEAMERS, BY CLASSES, (a) OPERATING ON THE RIVERS OF THE MISSISSIPPI VALLEY IN 1889.

RIVERS.	Classes.	Number of vessels in each class.	Gross earnings.	Expenses.	Net varnings
Total for Mississippi valley	***************************************	975	\$16, 337, 533	\$12,600,342	\$3, 737, 19
UPPER MISSISSIPPI SYSTEM.	A second				
pper Mississippi	Passenger and freight	23	463, 872	380, 375	83, 49
	Towing	77 24	1, 249, 850 131, 528	812, 401 92, 978	437, 44 39, 45
	Harbor	25	102, 147	71, 503	30, 64
	Miscellaneous	10	47, 389	47, 389	
Total		159	1, 994, 786	1, 403, 746	591, 04
Saint Croix	Towing	10	154, 597	83, 481	71, 11
	Ferry		1,485	1,050	43
	Harbor	4	13, 102	9, 172	3, 930
Total		15	169, 184	93, 703	75, 481
Chippewa	Towing	1	18, 244	9, 844	8, 400
Illinois	Passenger and freight	7	133, 764	112, 321	21, 443
	Ferry		2, 037	1,726	311
Total		9	135, 801	114, 047	21, 754
Missouri, Osage, and Gasconade	Passenger and freight	15	129,620	106, 288	23, 339
misouri, Osage, and Gaseonade	Ferry	1	102, 493	72, 772	29, 721
	Towing and harbor	10	62, 357	50, 417	11, 940
Total		49	294, 470	229,477	64, 993
Total for Upper Mississippi system		233	2, 612, 485	1, 850, 817	761, 668
OHIO SYSTEM.					
hio	Passenger and freight	85	2, 168, 215	1, 850, 248	317, 967
шо	Towing	114	2, 168, 020	1, 657, 136	510, 884
	Ferry	1	431, 267	246, 893	184, 374
	Harbor	48	254, 934	198, 282	56, 652
	Miscellaneous	25	48, 218	48, 218	
Total		326	5, 070, 654	4,000,777	1,069,877
Allegheny	Passenger and freight	6	20, 630	18,449	2,181
Monongahela	Passenger and freight	8	130, 664	107, 179	23, 485
	Towing	25	, 306, 810	233, 447	73, 363
	Ferry	3	11, 238	10, 017	1, 221
	Miscellaneous	12	48, 218	48, 218	
Total		48	496, 930	398, 861	98, 060
Muskingum	Passenger and freight	4	47, 571	35, 254	12, 317
	Towing	2 1	7, 361 550	4, 915 420	2, 446
Total		7	55, 482	40, 589	14, 893
Little Kanawha	Passenger and freight	2	24, 471	12, 075	12, 396
Little Ranawill.	Towing	1	2,000	1, 668	332
	Harbor	1	3, 450	2, 600	850
	Miscellaneous	1	1,000	1, 000	
Total		5	30, 921	17, 343	13, 578
Great Kanawha	Passenger and freight	5	46, 339	36, 288	10, 051
	Towing	4	47, 809	31, 938	15, 871
	Ferry	. 2	13, 283	6, 965	6, 318
•	Harbor	6	82, 575	61, 486	21,089
	Miscellaneous	2	3,000	3,000	
Total		19	193, 006	139, 677	53, 329
Big Sandy	Passenger and freight	5 3	62, 075 32, 843	46, 572 23, 307	15, 503 9, 536

[&]amp; The expense accounts of the barges, flats, and other unrigged are included, wherever practicable, in those of the towing steamers.

TABLE 5.—INCOME AND EXPENDITURE BY CLASSES—Continued.

GROSS EARNINGS, EXPENSES, AND NET EARNINGS OF ALL STEAMERS, BY CLASSES, OPERATING ON THE RIVERS OF THE MISSISSIPPI VALLEY IN 1889—Continued.

RIVERS.	Classes.	Number of vessels in each class.	Gross earnings.	Ехрепяея.	Net carning
CHIO SYSTEM—Continued.					İ
Ohio—Continued.					
Kentucky	Passenger and freight	. 3	\$40, 910	\$23 , 145	\$17,76
	Towing	. 1	17, 911	10, 721	7. 19
Total		4	58, 821	33, 806	24, 95
Green	Passenger and freight	. 5	31, 889	27, 154	4, 73
Wabash	, .		42, 320	22, 140	20, 18
Cumberland	Passenger and freight	. 13	179, 688	153, 412	26, 270
	Towing	. 4	25, 948	17, 527	8, 421
Total		17	205, 636	170, 939	34, 697
Tennessee	Passenger and freight	23	331, 345	289, 699	41, 646
	Towing	. 6	37, 328	28, 160	9, 168
·	Ferry	2	32, 133	13, 034	19, (99
Total		31	400, 806	330, 893	69, 913
Total for Ohio system		478	6, 702, 013	5, 270, 567	1, 431, 446
LOWER MISSISSIPPI SYSTEM.				= -	
Lower Mississippi	Passenger and freight	74	3, 040, 334	2, 742, 406	297, 928
	Towing		1, 938, 513	1, 157, 068	781, 445
	Ferry	45	442, 169	362, 431	79,734
	Harbor	. 53	801, 479	574, 219	227, 200
	Miscellaneous	.! 11	13, 815	13, 815	
Total		218	6, 236, 310	4, 849, 939	1, 386, 371
White	Passenger and freight	5	100, 697	82, 443	18.254
Аткапная	Passenger and freight	9	57, 199	44, 881	12.316
	Ferry		29, 184	11, 668	17, 516
Total		15	86, 383	56, 549	29. 834
Yazoo	Passenger and freight	11	144, 068	125, 469	18, 500
Washita	Passenger and freight		125, 180	103, 220	21,960
Red	Passenger and freight	9 .	324, 736	257, 092	67.644
Total for Lower Mississippi system	• • • • • • • • • • • • • • • • • • • •	261	7, 017, 374	5, 474, 712	1, 542, 662
RED RIVER OF THE NORTH.		i =			
Total	Freight	3	5, 661	4, 246	1, 415

TABLE 6.—EMPLOYES.

NUMBER OF OFFICERS AND MEN MAKING UP THE TOTALS OF THE ORDINARY CREWS OF ALL VESSELS, BY CLASSES, IN OPERATION ON THE RIVERS OF THE MISSISSIPPI VALLEY IN 1889, TOGETHER WITH THE TOTAL WAGES PAID DURING THAT YEAR.

RIVERS.	Clausea.	Num- ber of vessels in each class.	Number making up totals of ordi- nary crews.	Total wages paid dur- ing the year.	RIVERS.	Classes.	Num- ber of vessels in each class.	Number making up totals of ordi- nary crews.	Total wages paid dur- ing the year.
Total for Mississippi valley.		975	15, 996	\$5, 338, 862	OHIO SYSTEM—Cont'd. Ohio—Continued.				
UPPER MISSISSIPPI					Great Kanawha	Passenger and freight.	5	62	\$19, 410
SYSTEM. Upper Mississippi	Passenger and freight.	23	576	143, 333		Towing	4 2	63	16, 919
hber wrasissibhi	Towing	77	1. 239	385, 364	i I	Ferry	6	8 72	3, 420
'	Ferry	24	125	53, 505		Harlor	2	5	23, 070
	Harbor	rbor 25 117 37.075							2, 366
	Miscellaneous	10	111		Total		19	210	65, 185
Total		159	2, 168	639, 483	Big Sandy	Passenger and freight.	3	99	30, 485
				:		Harbor	3	42	13, 440
Saint Croix	•	10	159	41.601	Total				40.005
•	Ferry Harbor		1 2 700 Total					141	43, 925
	HALLMI	_ :	15		Kentucky	Passenger and freight	3	66	12, 220
Total	·	15	176	47. 588	1	Towing	1	'	4, 110
Chippewa	Towning	· 1	16	5, 046			•	<u> -</u>	
(nippewa	i owing	_		3,040	Total	!	. 4	81	16, 330
Illinois	Passenger and freight.	7	162	35, 661	 Green	Passenger and freight	5	43	5, 416
	Ferry	2	4	1. 100	Wabash		2	50	13, 020
Total		9	166	36, 761			<u>-</u> .	<u></u>	
I Will			=		Cumberland	Passenger and freight.	13	440	73, 345
Missouri, Osage, and Gas-	Passenger and freight.	15	243	41,794		Towing	4	25	11,085
conade.	Ferry	24	104	47, 352	Total		17	465	84, 430
	Towing and harbor	10	70	24.995				<u></u>	
Total		49	417	114, 141	Теппеввее	Passenger and freight	23	609	
Total for Upper Mis-		233	2, 943	843, 019		Towing	6 2	63	13,398
sissippi system.					Total	Ferry	31		
OHIO SYSTEM.					I catali			·	164, 735
Obio	Passenger and freight.	85	2, 559	688, 407	Total for Ohio sys- tem.		478	7, 663	2, 545, 625
	Towing	114	2, 069	910, 946	tem.	•			
	Ferry	54	266	142, 126	LOWER MISSISSIPPI		:		
	Harbor	48	462	152, 497	SYSTEM.	i			
	Miscellaneous	25	68	23. 869	Lower Mississippi	Passenger and freight.	74	2.968	1. 032. 012
Total	l 	326	5, 424	1, 917, 845		Towing		. 720 337	249, 927
• • • • • • • • • • • • • • • • • • • •				===		Harbor		301	183, 972 176, 573
Allegheny	Passenger and freight.	6	31	10, 670		Miscellaneous			12, 232
Monongabela	Passenger and freight.	8	81	45, 448					
mononganesa	Towing	25	287	120, 408	Total		218	4, 343	1, 654, 716
!	Ferry	3	12	7, 485	White	Passenger and freight.	5	119	41, 997
	Miscellaneous	12	42	22, 680				= ==	
m + 1					Arkansas	Passenger and freight.		141	27, 753
I Otal		48	422	196, 021		Ferry	6	20	6, 216
Muskingum	Passenger and freight.	4	67	17, 305	Total		15	161	33, 909
	Towing	2	11	3, 406	ŀ				
	Harbor	1	3	240	Yazoo	Passenger and freight.	11	255	60, 754
Total		7	81	20, 951	Washita		3	144	43, 756
10141		· ·			Red	Passenger and freight.	9	323	113, 349
Little Kanawha		2	18	4,682	Total for Lower Mis.		261	5, 345	1 049 541
	Towing	1	5	790	sissippi system.		201	0,343	1, 94 8, 541
	•								
	Harbor	1	4	1,085	DED DIVING ON MARCH			 -	
į	•	1	1	1, 085 540	RED RIVER OF THE NORTH.	<u> </u> 	· - ·	 -	

TABLE 7.—TRAFFIC—ALL OPERATING CRAFT.

PASSENGERS CARRIED AND TONS OF FREIGHT MOVED BY ALL CRAFT AND MILES TRAVELED BY ALL STEAMERS (OVER 5 TONS) OPERATING ON THE RIVERS OF THE MISSISSIPPI VALLEY IN 1889.

•	PAS	SENGERS CARRI	ED.	Freight	. Miles tray
RIVERS AND THEIR TRIBUTARIES.	Total.	Regular and excursion.	Ferry.	moved, in tons.	eled by a steamers
Grand total for Mississippi valley	10, 858, 894	2, 384, 248	8, 474, 646	a29, 405, 046	7, 316, 54
Upper Mississippi	1, 478, 085	285, 676	1, 192, 409	4. 486, 421	1, 101, 99
Saint Croix	12, 304	b304	12,000	846, 816	67, 99
Chippewa	4, 441	b4, 441		325, 477	12,00
Illinois	50, 368	21, 768	28,600	180, 264	83, 43
Missouri, Osage, and Gasconade	276, 536	26, 561	249, 975	1, 119, 362	159, 23
Total for Upper Mississippi system	1, 821, 734	338, 750	1, 482, 981	6, 958, 340	1, 424, 65
Ohio	5, 115, 806	1, 191, 732	3, 924, 074	7, 770, 565	2, 696, 02
Allegheny	5, 319	5, 319		365. 946	2, 04
Monongahela	261.387	130, 537	130, 850	3, 294, 932	130, 89
Muskingum	37, 681	37, 681		10, 281	27, 05
Little Kanawha	9, 451	9, 451		115, 657	14, 74
Great Kanawha	92, 124	53, 599	38, 525	1, 145, 202	59, 68
Big Sandy	11,000	11,000	;	286, 483	47, 35
Kentucky	9, 550	9, 559	·	256, 950	12, 58
Green	11.200	11. 200		819, 278	10, 30
Wabash	180	180	¦	93. 178	12, 70
Cumberland	19, 160	19, 160		974, 316	144.96
Tennessee	930, 285	27. 185	903, 100	909, 078	420, 89
Total for Ohio system	6, 503, 143	1, 506, 594	4, 996, 549	16, 041, 866	3, 579, 23
ower Mississippi	2, 451, 315	518. 267	1, 933, 048	a4, 374, 761	1. 826, 25
White	4, 183	4, 183	j	86, 393	68, 78
Arkansas	64, 716	2, 651	62, 065	1, 663, 817	61,68
Yasoo	5, 391	5, 391		77, 380	121, 21
Washita	1.204	1, 204		93, 707	60, 82
Red	7, 208	7, 208		105, 145	172, 80
Total for Lower Mississippi system	2, 534, 017	538, 904	1, 995, 113	a6, 401, 203	2, 311. 57
Red River of the North				3, 637	1.08

a Respectively, 32,993,792 tons, 7,963,507 tons, and 9,989,949 tons, including the coal and lumber which were brought into and carried on the Lower Mississippi from the Upper Mississippi and Ohio rivers. (See page 46.)

b These were excursion passengers carried on towboats.

TABLE S.—TRAFFIC—FREIGHT CARRIED AND TOWED.

FREIGHT CARRIED BY PASSENGER AND FREIGHT STEAMERS AND ON FERRIES AND FREIGHT TOWED BY PASSENGER AND FREIGHT STEAMERS AND TOWBOATS OPERATING ON THE RIVERS OF THE MISSISSIPPI VALLEY IN 1889.

		F	REIGHT CARRIED		¥1	REIGHT TOWED.	
RIVERS.	Total tons freight carried and towed.	Total tons carried.	On passenger and freight steamers.	On ferry steamers.	Total tons towed.	By passenger and freight steamers.	By towboats
Total for Mississippi valley	29, 405, 046	10, 345, 504	9, 233, 598	1, 111, 906	19, 059, 542	1, 926, 200	17, 133, 34
Upper Mississippi	4, 486, 421	1, 057, 873	518, 816	539, 057	3, 428, 548		3, 428, 548
Saint Croix	846, 816	800		800	846, 016	·	846, 016
Chippewa	325, 477		 				
Illinois	180, 264	135, 572	135, 572		44, 692	44, 692	1
Missouri, Osage, and Gasconade	1, 119, 362	957, 379	799, 344	158, 035	161, 983		161, 983
Total for Upper Mississippi system	6, 958, 340	2, 151, 624	1, 453, 732	697, 892	4, 806, 716	44, 692	4, 762, 024
Ohio	7, 770, 565	2, 559, 446	2, 314, 548	244, 898	5, 211, 119		5, 211, 119
Allegheny	365, 946	115, 696	115, 696		250, 250	250, 250	1
Monongahela	3, 294, 932	151, 725	151, 725		3, 143, 207	. 	3, 143, 207
Muskingum	10, 281	10, 281	10, 281				1
Little Kanawha	115, 657	2, 968	2, 968		112, 689		112, 689
Great Kanawha	1, 145, 202	112, 838	112, 838		1, 032, 364		1, 032, 364
Big Sandy	286, 483	156, 074	156, 074		130, 409	130, 409	
Kentucky	256, 950	53, 047	53, 047		203, 903	! 	203, 903
Green	819, 278	172, 508	172, 598		646, 770	646, 770	
Wabash	93. 178	35, 378	35, 378	.	57, 800	57, 830	1
Cumberland	974, 316	217, 534	217, 534		756, 782	İ	756, 782
Tennessee	909, 078	219, 170	219, 170		689, 908	<u>.</u>	689, 908
Total for Ohio system	16, 041, 866	3, 806, 665	3, 561, 767	244, 898	12, 235, 201	1, 085, 229	11, 149, 972
Lower Mississippi	4, 374, 761	3, 153, 415	2, 985, 399	168, 016	1, 221, 346		1, 221, 346
White	86, 393	22, 537	22, 537		63, 856	63, 856	
Arkansas	1, 663, 817	1, 020, 023	1, 618. 923	1, 100	643, 794	643, 794	
Yazoo	77. 380	37, 138	37, 138		40, 242	40, 242	
Washita	93, 707	64, 597	64, 597		29, 110	29, 110	
Red	105, 145	89. 505	89, 505		15, 64 0	15, 640	
Total for Lower Mississippi system	6, 401, 203	4, 387, 215	4, 218, 099	169, 116	2, 013, 988	792, 642	1, 221, 340
Red River of the North	3, 637				3, 637	3, 637	T

TABLE 9.—FREIGHT TRAFFIC BY COMMODITIES.

PRINCIPAL COMMODITIES OF THE FREIGHT, IN TONS, CARRIED ON PASSENGER AND FREIGHT STEAMERS (OVER 5 TONS) OPERATING ON THE RIVERS OF THE MISSISSIPPI VALLEY IN 1889.

		1		PROI	OUCTS OF	AGRICULT	URE.				PRODU	cts of	MINE-	•
RIVERS.	Total.	Wheat.	Corn.	Other grain. p	Mill oroducts.	Cotton.	Tobacco.	Fruit and veg	e- Hay	Bitumi nous coal.	Iron ore.	Other ore.	Stone and grave	and
Total Mississippi valley.	9, 233, 59	836, 386	311, 598	88, 949	89, 992	808, 135	27, 707	41, 74	33, 94	4 313	894	450	- : 21, 93	 2 :
Upper Mississippi	518, 810	11			630						·			
Illinois	135, 575 799, 34	-1	50, 000		747 9, 275	• • • • • • • • •	••••••		· · · · · ·	300		• • • • • •	· · • • · • •	• • • • • • • • • • • • • • • • • • • •
nade. Total Upper Mississippi		!!			` .						,			-
system.	1, 453, 73	2 177, 000	50,000		10, 652					300		· · · ·	.!	
Ohio	2, 314, 54	11	j		620	9, 412					894		· · · · · ·	
Monongahela	115, 69 151, 72	11	:			· · · · · · · · · · · · · · ·		. 2	l 89			 		
Muskingum	10, 28	II .	į											
Little Kanawha	2,96	:	·¦			• • • • • • • • • • • • • • • • • • •		ļ	'			 .		· · · · · · · ·
Great Kanawha	112, 83	И	423		2, 577	• • • • • • • • • • • • • • • • • • • •	• • • • • • • • •				;·····;	· · · · · ·		
Big Sandy Kentucky	156, 07- 53, 04	11	123	5, 949	1, 503	. 	2, 783	2, 51	4,40	7				
Green	172, 50	1		1, 431	773	· · · · · · · · · · · · · · · ·	4, 723	50		1.				
Wabash	35, 37	1,811	15, 849	99 .		· • • • • • • • • • • • • • • • • • • •	·	·			i		. 1, 754	
Cumberland	217, 53			20, 983	3, 628		10, 201		89	!		• • • • • •		
Tennessee	219, 17	0 1 5,477	17. 984	5. 351	2, 267	10, 138	10,000	18, 65	7 2,44	0 13	·····	· · · · · · · · · · · · · · · · · · ·	. 20. 178	9
Total Ohio system	3, 561, 76	7 133, 386	34, 256	33, 813	11, 368	19, 550	27,707	21, 60	8, 95	13	894	 .	. 21, 93	. 9
Lower Mississippi	2, 985, 39	9 420,000	77, 543	33, 332	9, 462	716, 503			. 50	M				
White	22, 53	7	· • • • • • • • • • • • • • • • • • • •			7, 403		<u> </u>				450		
Arkansas	1, 018, 92	- 11		21, 804	57, 655	35, 003		20, 05	8 24, 48	19 ∤				
Yazoo	37, 13 64, 59	11	22, 865 16, 652			• • • • • • • • • • • • • • • • • • •	••••••• :	 !	•-		• • • • • •		• • • • • •	· · · · · · · ·
Red	89, 50	1	1		835	29, 676	!	İ		••!	· • • • • • • • • • • • • • • • • • • •	. 	• • • • • • • •	
									-	- (-,	
	4 010 00		007 940	EE 100 '	87 670	700 EOT	:			·n !!				
Total Lower Mississippi system.	4, 218, 09	526, 000	227, 342	55, 136	67, 972	788, 583	ļ	20, 05	8 24, 99	3	,	450		
				55, 136	67, 972	788, 585		!		3	.	450	······································	
		HER PRODUC		55, 136	67, 972	788, 585	M.A.	. 20, 05		3	,	450	_ 	-'. -
	- от	HER PRODUC		Petro		Iron,	Other	NUFACTU	RES.	Cement,	Alloth	er C	otton	
нувtет.		HER PRODUC	тв.	-	l Sugar.	Iron,	Other d manu	iron Ba	RES.	<u> </u>	All oth	ier Co	otton	
нувtет.	- OT	HER PRODUC	TS. Animal	Petro- leum and	l Sugar.	Iron, pig an bloom	Other manu ture	iron Ba	rand	Cement,	manuf	er Co	otton d and oil.	di se. et
nystem. Rivers. Total Mississippi valley	- OT	Lumber and forest products.	Animal products.	Petro- leum and other oils	l Sugar.	Iron, pig an bloom	Other manu ture	iron Ba	r and heet letal.	Cement, brick, and lime.	manuf tures	er Co	otton d and oil.	5, 622,
nystem. Rivers. Total Mississippi valley	- OT	Lumber and forest products.	Animal products.	Petro- leum and other oils	l Sugar.	Iron, pig an bloom	Other manu ture	iron Ba	r and heet letal.	Cement, brick, and lime.	manuf tures	er Co	otton d and oil.	5, 62 2.
RIVERS. Total Mississippi valley Tital Mississippi valley Tital Mississippi valley Missouri. Osage, and Gasco	- OT	Lumber and forest products.	Animal products. 170,518 2,356	Petro- leum and other oils	l Sugar.	Iron, pig an bloom	Other manu ture	iron Ba	r and heet letal.	Cement, brick, and lime.	manuf tures	er Co	otton d and oil.	5, 62 2.
RIVERS. Total Mississippi valley pper Mississippi Illinois Missouri. Osage, and Gasconade. Total Upper Mississippi	- OT	Lumber and forest products.	Animal products. 170, 518 2, 356 2, 094	Petro- leum and other oils	l Sugar.	Iron, pig an bloom	Other manu ture	iron Ba	r and heet letal.	Cement, brick, and lime.	manuf tures	er Co	otton d and oil.	5, 622. 492. 114. 597.
RIVERS. Total Mississippi valley Tipper Mississippi Illinois Missouri. Osage, and Gasconade. Total Upper Mississippi	- OT	Lumber and forest products.	Animal products. 170,518 2,356 2,094 6,175	Petro- leum and other oils	90,84	Iron, pig an bloom	d Other manu ture	iron Bafac si 88. m	r and heet letal.	Cement, brick, and lime.	manuf tures	contact Contac	otton d and oil.	5, 622. 492. 114. 597.
RIVERS. Total Mississippi valley Tipper Mississippi Illinois Missouri. Osage, and Gasconade. Total Upper Mississippi	- OT Ice.	Lumber and forest products.	Animal products. 170,518 2,356 2,094 6,175	Petro- leum and other oils	90.84	Iron, pig an bloom	d Other manu ture	iron Ba	r and heet letal.	Cement, brick, and lime.	manuf tures	36 38	otton d and oil.	5, 622. 492. 114. 597. 1, 205.
RIVERS. Total Mississippi valley Upper Mississippi Illinois Missouri. Osage, and Gasconade. Total Upper Mississippi system.	- OT Ice.	Lumber and forest products.	Animal products. 170,518 2,356 2,094 6,175	Petro- leum and other oils 3, 534	90.84	Iron, pig an bloom	d Other manu ture	iron Ba si mu 110	r and heet letal.	Cement, brick, and lime.	48, 53	36 38	otton d and oil.	492.1 114.5 597.1 2, 037.
RIVERS. Total Mississippi valley 'pper Mississippi Illinois Missouri. Osage, and Gasconade. Total Upper Mississippi system. Dhio Allegheny Monongahela Muskingum	- OT Ice.	Lumber and forest products. 547, 545	Animal products. 170, 518 2, 356 2, 094 6, 175 10, 625	Petro- leum and other oils 3, 534	90.84 	Iron, pig an bloom	d Other manu ture	iron Ba fac si ,110	r and heet letal.	Cement, brick, and lime.	48, 53	36 38	otton d and oil.	492,1 114. 597. 1, 205. 2, 037. 12.
RIVERS. Total Mississippi valley Total Mississippi Illinois Missouri. Osage, and Gasconade. Total Upper Mississippi system. Dhio. Allegheny Monongabela Muskingum Little Kunawha	- OT Ice.	Lumber and forest products. 547, 545 97, 360 30, 806	Animal products. 170, 518 2, 356 2, 094 6, 175 10, 625	Petro- leum and other oils 3, 534	90.84 	Iron, pig an bloom	d Other manu ture	iron Ba fac si ,110	r and heet letal.	Cement, brick, and lime.	48, 53	36 38	otton d and oil.	492.: 114 597 1, 205 2, 037 12 117 8, 2.
RIVERS. Total Mississippi valley Tipper Mississippi Illinois Missouri. Osage, and Gasconade. Total Upper Mississippi system. Dhio Allegheny Monongabela Muskingum Little Kunawha Great Kanawha	- OT Ice.	Lumber and forest products. 547, 545 97, 360 30, 806 475	Animal products. 170, 518 2, 356 2, 094 6, 175 10, 625	Petro- leum and other oils 3, 534	90.84 	Iron, pig an bloom	d Other manu ture	iron Ba fac si ,110	r and heet letal.	Cement, brick, and lime.	48, 5: 	33 33 325	otton d and oil.	5, 622.1 492.1 114 597.4 1, 205. 2, 037. 12. 117. 8, 2.
RIVERS. Total Mississippi valley Tipper Mississippi Illinois Missouri. Osage, and Gasconade. Total Upper Mississippi system. Dhio. Allegheny Monongabela Muskingum Little Kunawha Great Kanawha Big Sandy	- OT Ice.	HER PRODUCT Lumber and forest products. 547, 545 97, 360 30, 806 475 12, 541	Animal products. 170, 518 2, 356 2, 094 6, 175 10, 625 1, 407	Petro- leum and other oils 3, 534	90.84 	Iron, pig an bloom	d Other manu ture	NUFACTU	r and heet letal.	Cement, brick, and lime.	48, 5: 	36 38	otton d and oil.	5, 622. 492. 114. 597. 1, 205. 2, 037. 12. 117. 8, 2.
RIVERS. Total Mississippi valley Tipper Mississippi Illinois Missouri. Osage, and Gasconade. Total Upper Mississippi system. Dhio Allegheny Monongabela Muskingum Little Kunawha Great Kanawha	- OT Ice.	Lumber and forest products. 547, 545 97, 360 30, 806 475	Animal products. 170, 518 2, 356 2, 094 6, 175 10, 625	Petro- leum and other oils 3, 534	90.84 	Iron, pig an bloom	d Other manu ture	iron Ba fac si ,110	r and heet letal.	Cement, brick, and lime.	48, 5: 	33 33 33 33 34 34 34 34 34 34 34 34 34 3	otton d and oil.	5, 622. 492. 114. 597. 1, 205. 2, 037. 12. 110. 129.
RIVERS. Total Mississippi valley Total Mississippi valley Illinois Missouri. Osage, and Gasconade. Total Upper Mississippi system. Dhio Allegheny Monongabela Muskingum Little Kanawha Great Kanawha Big Sandy Kentucky Green Wabash	- OT Ice.	HER PRODUC Lumber and forest products. 547, 545 97, 360 30, 806 475 12, 541 9, 547 152, 541 9, 500	Animal products. 170, 518 2, 356 2, 094 6, 175 10, 625 1, 407	Petro- leum and other oils 3, 534	90.84 	Iron, pig an bloom	d Other manu ture 55 92 5 92 5 54 54 54 54 54 54 54 54 54 54 54 55 54 55 54 55 54 55 55	iron Ba si si	r and heet letal.	Cement, brick, and lime. 1, 265	29, 1 29, 1 2, 00 2, 50 2, 50 2, 50	33	otton d and oil.	5, 622. 492. 114. 597. 1, 205. 2, 037. 12. 110. 139. 8, 6,
RIVERS. Total Mississippi valley Total Mississippi valley Illinois Missouri. Osage, and Gasconade. Total Upper Mississippi system. Dhio Allegheny Monongahela Muskingum Little Kanawha Great Kanawha Great Kanawha Great Kanawha Great Kanawha Great Kanawha Green Wabash Cumberland	- OT Ice.	HER PRODUC Lumber and forest products. 547, 545 97, 360 30, 806 475 12, 541 9, 547 152, 541 9, 500 146, 398	Animal products. 170, 518 2, 356 2, 094 6, 175 10, 625 1, 407 676 2, 350 501	Petro- leum and other oils 3, 534 2, 450	90.84 = 57,88	Iron, pig an bloom	d Other manu ture 55 92 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2	nuracru iron Ba fac s s nu 110	r and heet etal.	Cement, brick, and lime. 1, 265	29, 1 29, 1 2, 0 5, 0 2, 5 2	133	otton d and oil. 188, 684	5, 622, 1 492, 1 114, 597, 1 1, 205, 2 117, 8 2, 100, 1 199, 8, 6, 21, 2
RIVERS. Total Mississippi valley Total Mississippi valley Tillinois Missouri. Osage, and Gasconade. Total Upper Mississippi system. Dhio. Allegheny Monongahela Muskingum Little Kanawha Great Kanawha Big Sandy Kentucky Green Wabash	- OT Ice.	HER PRODUC Lumber and forest products. 547, 545 97, 360 30, 806 475 12, 541 9, 547 152, 541 9, 500	Animal products. 170, 518 2, 356 2, 094 6, 175 10, 625 1, 407	Petro- leum and other oils 3, 534	90.84 = 57,88	Iron, pig an bloom	d Other manu ture 55 92 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2	iron Ba si si	r and heet letal.	Cement, brick, and lime. 1, 265	29, 1 29, 1 2, 00 2, 50 2, 50 2, 50	133	otton d and oil.	5, 622. 492. 114. 597. 1, 205. 2, 037. 12. 117. 8. 2, 110. 139. 4, 6,
rivers. Total Mississippi valley Total Mississippi valley Illinois Missouri. Osage, and Gasconade. Total Upper Mississippi system. Ohio Allegheny Monongahela Muskingum Little Kanawha Great Kanawha Great Kanawha Great Kanawha Great Kanawha Green Wabash Cumberland	- OT Ice.	HER PRODUC Lumber and forest products. 547, 545 97, 360 30, 806 475 12, 541 9, 547 152, 541 9, 500 146, 398	Animal products. 170, 518 2, 356 2, 094 6, 175 10, 625 1, 407 676 2, 350 501	Petro- leum and other oils 3, 534 2, 450	1 Sugar. 90, 84	Iron, pig an bloom 4 5. 27	d Other manu ture 55 92 55 92 54 54 54 54 56 59 56 56 56 56 56 56 56 56 56 56 56 56 56	nuracru iron Ba fac s s nu 110	r and heet etal.	Cement, brick, and lime. 1, 265	29, 1 29, 1 2, 0 5, 0 2, 5 2	33 33 33 33 34 34 35 35 36 36 38 37 1 38 38 37 1 38 38 38 37 1 38 38 38 38 38 38 38 38 38 38 38 38 38	otton d and oil. 188, 684	5, 622. 492. 114. 597. 1, 205. 2, 037. 12. 110. 129. 8, 6,
RIVERS. Total Mississippi valley Total Mississippi valley Total Mississippi valley Missouri. Osage, and Gasconade. Total Upper Mississippi system. Dhio. Allegheny Monongahela Muskingum Little Kanawha Great Kanawha Big Sandy Kentucky Green Wabash Cumberland Tennessee Total Ohio system ***	- OT Ice. 10	HER PRODUC Lumber and forest products. 547, 545 97, 360 30, 806 475 12, 541 9, 547 152, 541 9, 500 146, 398 44, 732	T8. Animal products. 170, 518 2, 356 2, 094 6, 175 10, 625 1, 407 676 2, 350 501 5, 623 1, 048	Petro-leum an other oil: 3, 534 2, 450 678	1 Sugar. 90.84	Iron, pig an bloom 4 5. 27	d Other manu ture 55 92 55 92 54 54 54 54 56 59 56 56 56 56 56 56 56 56 56 56 56 56 56	Interest Interest	RES. r and heet etal. 112 =	Cement, brick, and lime. 1, 265	29, 1 2, 00 2, 5, 00 2, 5, 00 4, 4	13	otton d and oil. 38, 684	5, 622. 492. 114. 597. 1, 205. 12, 037. 12, 117. 8, 2, 110. 139. 4, 6, 21.
RIVERS. Total Mississippi valley Piper Mississippi Illinois Missouri. Osage, and Gasconade. Total Upper Mississippi system. Phio. Allegheny Monongabela Muskingum Little Kunawha Great Kanawha Big Sandy Kentucky Green Wabash Cumberland Tennessee Total Ohio system Ower Mississippi White	10 10 10	HER PRODUCT Lumber and forest products. 547, 545 97, 360 30, 806 475 12, 541 9, 547 152, 541 9, 500 146, 398 44, 732 503, 900	Trs. Animal products. 170, 518 2, 356 2, 094 6, 175 10, 625 1, 407 676 2, 350 501 5, 623 1, 048 11, 605	Petro-leum an other oil: 3, 534 2, 450 678	Sugar. 90.84 57,88 1,01:	Iron, pig an bloom 4 5. 27	d Other manu ture 5 92 54 2. 1. 1. 66 100	NUFACTU iron	RES. r and heet etal. 112 =	Cement, brick, and lime. 1, 265	29, 1 2, 00 2, 5, 00 2, 5, 00 4, 4	33 33 33 33 34 34 34 34 34 34 36 36 36 36 36 36 36 36 36 36 36 36 36	1,800 1,809 2,338	5, 622. 492. 114. 597. 1, 205. 2, 037. 12. 117. 8, 2. 110. 139. 19, 8, 6, 21. 2, 553. 1, 425.
RIVERS. Total Mississippi valley Tipper Mississippi Illinois Missouri. Osage, and Gasconade. Total Upper Mississippi system. Dhio Allegheny Monongabela Muskingum Little Kunawha. Great Kanawha. Big Sandy Kentucky Green. Wabash Cumberland Tennessee Total Ohio system ower Mississippi White Arkansas	10 10 10	HER PRODUC Lumber and forest products. 547, 545 97, 360 30, 806 475 12, 541 9, 547 152, 541 9, 500 146, 398 44, 732 503, 900	T8. Animal products. 170, 518 2, 356 2, 094 6, 175 10, 625 1, 407 676 2, 350 501 5, 623 1, 048 11, 605	Petro-leum an other oil: 3, 534 2, 450 678	Sugar. 90.84 57,88 1,01:	Iron, pig an bloom 4 5. 27	d Other manu ture 5 92 54 2. 1. 1. 66 100	Interest Interest	RES. r and heet etal. 112 =	Cement, brick, and lime. 1, 265	29, 1 2, 00 2, 5, 00 2, 5, 00 4, 4	33 33 33 33 33 33 34 35 36 38 36 38 36 38 36 38 36 38 36 38 36 36 36 36 36 36 36 36 36 36 36 36 36	1,800 1,899 2,338	5, 622, 1 492, 1 114, 597, 1 1, 205, 2, 037, 1 2, 037, 1 8, 2, 1 1, 1 2, 1 8, 6, 2 1, 425, 1 1, 425, 1 2, 341, 4 241, 4 3
RIVERS. Total Mississippi valley Ipper Mississippi Illinois Missouri. Osage, and Gasconade. Total Upper Mississippi system. Dhio Allegheny Monongabela Muskingum Little Kanawha Great Kanawha Big Sandy Kentucky Green. Wabash Cumberland Tennessee Total Ohio system Ower Mississippi White Arkansas Yazoo	10 10 10	HER PRODUC Lumber and forest products. 547, 545 97, 360 30, 806 475 12, 541 9, 547 152, 541 9, 500 146, 398 44, 732 503, 900 40, 784 2, 861	T8. Animal products. 170, 518 2, 356 2, 094 6, 175 10, 625 1, 407 676 2, 350 501 5, 623 1, 048 11, 605	Petro-leum an other oil: 3, 534 2, 450 678	Sugar. 90.84 57,88 1,01:	Iron, pig an bloom 4 5. 27	d Other manu ture 5 92 54 2. 1. 1. 66 100	NUFACTU iron	RES. r and heet etal. 112 = 112	Cement, brick, and lime. 1, 265	29, 1 2, 00 2, 5, 00 2, 5, 00 4, 4	33 33 33 33 33 33 34 35 36 38 36 38 36 38 36 38 36 38 36 38 36 36 36 36 36 36 36 36 36 36 36 36 36	1,800 1,899 2,338 8,020	disc. et dis
RIVERS. Total Mississippi valley Upper Mississippi Illinois Missouri. Osage, and Gasconade Total Upper Mississippi system. Dhio Allegheny Monongabela Muskingum Little Kanawha Great Kanawha Big Sandy Kentucky Green. Wabash Cumberland Tennessee Total Ohio system Ower Mississippi White Arkansas Yazoo Washita	10 10 10	HER PRODUC Lumber and forest products. 547, 545 97, 360 30, 806 475 12, 541 9, 547 152, 541 9, 500 146, 398 44, 732 503, 900	T8. Animal products. 170, 518 2, 356 2, 094 6, 175 10, 625 1, 407 676 2, 350 501 5, 623 1, 048 11, 605	Petro-leum an other oil: 3, 534 2, 450 678	Sugar. 90.84 57,88 1,01:	Iron, pig an bloom 4 5. 27	d Other manu ture 5 92 54 2. 1. 1. 66 100	NUFACTU Iron Ba Salar Ba Salar Ba Salar Ba Salar Ba Salar Ba Salar Ba Salar Ba Salar Ba Salar Ba Salar Ba Salar Ba Salar Ba Salar Ba Salar Ba Salar Ba Salar Salar Ba Salar	RES. r and heet etal. 112 = 112	Cement, brick, and lime. 1, 265	29, 1 2, 00 2, 5, 00 2, 5, 00 4, 4	34	1,800 1,809 2,338 15,784 8,020 5,058	2, 037, 12, 117, 117, 117, 117, 117, 117, 117
RIVERS. Total Mississippi valley Ipper Mississippi Illinois Missouri. Osage, and Gasconade. Total Upper Mississippi system. Dhio Allegheny Monongabela Muskingum Little Kunawha Big Sandy Kentucky Green Wabash Cumberland Tennessee Total Ohio system Ower Mississippi White Arkansas Yazoo	10 10 10	HER PRODUC Lumber and forest products. 547, 545 97, 360 30, 806 475 12, 541 9, 547 152, 541 9, 500 146, 398 44, 732 503, 900 40, 784 2, 861	T8. Animal products. 170, 518 2, 356 2, 094 6, 175 10, 625 1, 407 676 2, 350 501 5, 623 1, 048 11, 605	Petro-leum an other oil: 3, 534 2, 450 678	1 Sugar. 90.84 57,883 1,019 58,896 30.824	Iron, pig an bloom 4 5.27 1 3,000 5 2,26 5 5.27 3	d Other manu ture 55 92 54 2 1 1 1 1 1 1 1	NUFACTU Iron Ba Salar Ba Salar Ba Salar Ba Salar Ba Salar Ba Salar Ba Salar Ba Salar Ba Salar Ba Salar Ba Salar Ba Salar Ba Salar Ba Salar Ba Salar Ba Salar Salar Ba Salar	RES. r and heet etal. 112 = 112	Cement, brick, and lime. 1, 265	29, 1 2, 00 2, 5, 00 2, 5, 00 4, 4	33 34 34 35 36 38 37 31 31 32 31 31 31 31 31 31 31 31 31 31 31 31 31	1,800 1,899 2,338 8,020	492. 114. 597. 12. 20. 317. 8. 2. 117. 8. 6. 21. 68. 21. 425. 1241. 3. 42.

TABLE 10.—FREIGHT TRAFFIC (IN TONS), BY COMMODITIES, ON UNRIGGED CRAFT.

			PRO	DUCTS OF	AGRICULT	URE.			PRODUCTS	OF MINES.	_
RIVERS.	Total.	Wheat.	Corn.	Other grain.	Mill products	Cotton.	Hay.	Bitumi- nous coal.	Iron ore	Stone and gravel.	Clay and sand.
Total for Mississippi valley	19, 059, 542	3, 595	471, 203	3, 767	580	87, 607	57, 635	8, 527, 115	573, 896	156, 699	141, 46
Upper Mississippi	3, 428, 548							10, 624			
Saint Croix	846, 016				· • • • • • • • • • • • • • • • • • • •	.			· · · · · · · · · · · · · · · · · · ·	.'	
Chippewa	325, 477	· · · · · · · · · · · · ·			¦					•••••••••••••••••••••••••••••••••••••••	!.
Illinois	44, 692	• • • • • • • • • • • • • • • • • • • •	!		ļ	·[·····		2,000			
Missouri, Osage, and Gasconade	161, 983						5,000	51, 162	1,500		
Total for Upper Mississippi system	4, 806, 716				¦	.	5, 000	63, 786	1,500		¦
Ohio	5, 211, 119	595			1	9, 110	635	4, 018, 787	10, 762	=,=====	
Allegheny	250, 250	 .						١		19,050	51, 50
Monongahela	3, 143, 207			· · · · · · · · · · · · · · · · · · ·				3, 059, 418	33, 386		
Little Kanawha	112, 689	• • • • • • • • • • • • • • • • • • • •	l	ļ	! :			1, 100	1		١
Great Kanawha	1, 032, 364		• • • • • • • • • • • • • • • • • • • •					941, 446			
Big Sandy	130, 409	• • • • • • • • • • • • • • • • • • • •			•••••			· · · · · · · · · · · · · · · · · · ·	•	• • • • • • • • • • • • • • • • • • • •	¦·····
Kentucky	203, 903			1,042	:	· ·····		45, 904	· · · · · · · · · · · · · · · · · · ·	12,861	!
Green	646, 770 57, 800	. 	1	ĺ	1]		20, 804		788	ļ
('umberland	756, 782	. 	· · · · · · · · · · · · · · · · · · ·							1,000	89, 96
Tennessee	689, 908	· • • • • • • • • • • • • • • • • • • •	1	l	l	. 2,404	5, 000	35, 875	528, 248		
			i	1.040		- <u>-</u>			.,		
Total for Ohio system	12, 235, 201	595		1,042		. 11,514	5, 635	8, 102, 530	572, 390	36, 699	141, 46
Lower Mississippi	1, 221, 346		421, 203	2, 725	ļ	. 66, 955	5, 000	183, 848	·		
White	63, 856	. .						· · · · · · · · · · · · · · · · · · ·			
Arkansas	643, 794	· • • • • • • • • • • • • • • • • • • •	50, 000				42, 000	165, 888	·	120,000	
Yazoo	40, 242	• • • • • • • • •			¦	. 9, 138					
Washita	29, 110 15, 640	• • • • • • • • • • • • • • • • • • • •		1		1		11, 063			
	15, 040				,			11,000	-,		
Total for Lower Mississippi system	2, 013, 988		471, 203	2, 725		. 76, 093	47, 000	360, 799		. 120, 000	
Red River of the North	3, 637	3,000			580				-,		
	ОТНВ	PRODUCT	rs.			M	ANUFACTUI	tes.			
RIVERS.		Lumber	r and for-		Ir	on (pig and	Cement, br	ick. All	other C	otton seed	Merchar dise, etc
	Ice.	est pr	oducts.	Suga	r. 	bloom).	and lim	e. manufa	ctures.	and oil.	
Total for Mississippi valley	91, 000		8, 652, 696	1	00, 000	2, 500		928	26, 050	6, 104	156, 70
Upper Mississippi	45, 050	1	3, 372, 874					. 			
Saint Croix			846, 016	ı 			¦				¦
Chippewa		-	325, 477			. 		. .	1		
Illinois	41, 950	1	749					1			
Missouri, Osage, and Gasconade			742			• • • • • • • • • • • • • • • • • • • •					
		-	104, 321			• • • • • • • • • • • • • • • • • • • •					
Total for Upper Mississippi system	87, 000		- 1								
Total for Upper Mississippi system Ohio	87,000		104, 821						26, 050		13, 42
Ohio	87,000		104, 821 4, 649, 430 1, 131, 755					200	26, 050		13, 45
			104, 821				ì	200	26, 050	==	13, 42
Ohio			104, 321 4, 649, 430 1, 131, 755 179, 500				ì	··	26, 050		
Ohio			104, 321 4, 649, 430 1, 131, 755 179, 500 50, 403 109, 079 80, 468					··	26, 050		2,5
Ohio Allegheny Monongaheia Little Kanawha Great Kanawha Big Sandy			104, 321 4, 649, 430 1, 131, 755 179, 500 50, 403 109, 079 80, 468 130, 409					850	26, 050		13, 42 2, 51 9, 80
Ohio Allegheny Monongaheia Little Kanawha Great Kanawha Big Sandy Kentucky			104, 321 4, 649, 430 1, 131, 755 179, 500 50, 403 109, 079 80, 468 130, 409 190, 000					650	26, 050		2,5
Ohio Allegheny Monongaheia Little Kanawha Great Kanawha Big Sandy Kentucky Green			104, 321 4, 649, 430 1, 131, 755 179, 500 50, 403 109, 079 80, 468 130, 409 190, 000 600, 000					650			2,5
Ohio Allegheny Monongaheia Little Kanawha Great Kanawha Big Sandy Kentucky Green Wabash			104, 321 4, 649, 430 1, 131, 755 179, 500 50, 403 109, 079 80, 468 130, 409 190, 000 600, 000 53, 800					78			2,5
Ohio Allegheny Monongaheia Little Kanawha Great Kanawha Big Sandy Kentucky Green Wabash Cumberland			104, 321 4, 649, 430 1, 131, 755 179, 500 50, 403 109, 079 80, 468 130, 409 190, 000 600, 000 53, 800 664, 318					78			2,5
Ohio Allegheny Monongaheia Little Kanawha Great Kanawha Big Sandy Kentucky Green Wabash Cumberland Tennessee			104, 321 4, 649, 430 1, 131, 755 179, 500 50, 403 109, 079 80, 468 130, 409 190, 000 600, 000 604, 318 118, 381			2, 500		78			2,5
Ohio Allegheny Monongaheia Little Kanawha Great Kanawha Big Sandy Kentucky Green Wabash Cumberland			104, 321 4, 649, 430 1, 131, 755 179, 500 50, 403 109, 079 80, 468 130, 409 190, 000 600, 000 53, 800 664, 318					78			2,5
Ohio Allegheny Monongaheia Little Kanawha Great Kanawha Big Sandy Kentucky Green Wabash Cumberland Tennessee Total for Ohio system			104, 321 4, 649, 430 1, 131, 755 179, 500 50, 403 109, 079 80, 468 130, 409 190, 000 600, 000 604, 318 118, 381	1	00,000	2, 500		78			2, 5
Ohio Allegheny Monongaheia Little Kanawha Great Kanawha Big Sandy Kentucky Green Wabash Cumberland Tennessee Total for Ohio system Lower Mississippi White			104, 321 4, 649, 430 1, 131, 755 179, 500 50, 403 109, 079 80, 468 130, 409 190, 000 600, 000 53, 800 664, 318 118, 381 3, 308, 113		00,000	2, 500		78			2, 5
Ohio Allegheny Monongaheia Little Kanawha Great Kanawha Big Sandy Kentucky Green Wabash Cumberland Tennessee Total for Ohio system Lower Mississippi White Arkansas			104, 321 4, 649, 430 1, 131, 755 179, 500 50, 403 109, 079 80, 468 130, 409 190, 000 600, 000 653, 800 664, 318 118, 381 3, 308, 113 310, 654 63, 856 261, 906	1	00, 000	2, 500		78			2, 5, 9, 80
Ohio Allegheny Monongaheia Little Kanawha Great Kanawha Big Sandy Kentucky Green Wabash Cumberland Tennessee Total for Ohio system Lower Mississippi White Arkansas			104, 321 4, 649, 430 1, 131, 755 179, 500 50, 403 109, 079 80, 468 130, 409 190, 000 600, 000 53, 800 664, 318 118, 381 3, 308, 113 310, 654 63, 856 261, 906 25, 000	1	00,000	2, 500		78		6, 104	2, 5
Ohio Allegheny Monongaheia Little Kanawha Great Kanawha Big Sandy Kentucky Green Wabash Cumberland Tennessee Total for Ohio system Lower Mississippi White Arkansas. Yazoo Washita			104, 321 4, 649, 430 1, 131, 755 179, 500 50, 403 109, 079 80, 468 130, 409 190, 000 600, 000 53, 800 664, 318 118, 381 3, 308, 113 310, 654 63, 856 261, 906 29, 110	1	00,000	2, 500		78		6, 104	2, 5, 9, 80
Ohio Allegheny Monongaheia Little Kanawha Great Kanawha Big Sandy Kentucky Green Wabash Cumberland Tennessee Total for Ohio system Lower Mississippi White Arkansas Yazoo Washita Red	4,000		104, 321 4, 649, 430 1, 131, 755 179, 500 50, 403 109, 079 80, 468 130, 409 190, 000 633, 800 664, 318 118, 381 3, 308, 113 310, 654 63, 856 261, 906 25, 000 29, 110 4, 577			2, 500		78			2, 5, 9, 80 9, 80 25, 77 130, 90
Ohio Allegheny Monongaheia Little Kanawha Great Kanawha Big Sandy Kentucky Green Wabash Cumberland Tennessee Total for Ohio system Lower Mississippi White Arkansas. Yazoo Washita			104, 321 4, 649, 430 1, 131, 755 179, 500 50, 403 109, 079 80, 468 130, 409 190, 000 600, 000 53, 800 664, 318 118, 381 3, 308, 113 310, 654 63, 856 261, 906 29, 110		00, 000	2, 500		78		6, 104	2,5
Ohio Allegheny Monongaheia Little Kanawha Great Kanawha Big Sandy Kentucky Green Wabash Cumberland Tennessee Total for Ohio system Lower Mississippi White Arkansas Yazoo Washita Red	4,000		104, 321 4, 649, 430 1, 131, 755 179, 500 50, 403 109, 079 80, 468 130, 409 190, 000 633, 800 664, 318 118, 381 3, 308, 113 310, 654 63, 856 261, 906 25, 000 29, 110 4, 577			2, 500		78			2,5 9,8

TABLE 11.—FREIGHT TRAFFIC BY COMMODITIES.

PRINCIPAL COMMODITIES OF THE FREIGHT, IN TONS, MOVED BY FERRYBOATS (OVER 5 TONS) OPERATING ON THE RIVERS OF THE MISSISSIPPI VALLEY IN 1889.

·							P	RODUCTS	B OF AGRIC	CULTURE.	• '		
HIVERS.	Total.		Whe	at.	Cor	m.		ther ain.	Mill products	Cott	– on.	Tobacco.	Fruit and vegetables.
Total Mississippi valley	1, 111,	906	į 8	, 461	4	, 087		2, 872	323	 'i_	550	252	17. 86
Upper Mississippi	539.	057			1	. — . L, 000 :		2,870		_	!		. 704
Saint Croix		800	j			· j -	. 						
Missouri, Osage, and Gasconade	. 158,	035	5	, 658		502			323	:		252	67
Total Upper Mississippi system	697,	892		, 658		, 502		2, 870	323			252	763
Ohio	. 244,	898		3	2	2, 585		2					
Lower Mississippi		, 016 , 100	2	 8,800	<u>-</u>				<u> </u>	-	550		16,000
Total Lower Mississippi system		116	4	, 800						1	550		. 17, 100
	1	<u> </u>	OTHER P	RODUC	TS.			•	MANUFA	CTURES.			
RIVERS.	Bituminous coal.	li .	umber.		imal lucts.	Pet leum other	and		Bar ar sheet meta	bric	nent, k, and me.	All other manu- factures.	-
Total Mississippi valley			100, 400	-	6, 858		4	. 2	29	1	182	10	0 958, 214
Upper Mississippi			100, 315		1, 144						160	10	0 421.058
Missouri, Osage, and Gasconade	1	1	63		5, 249		4	2	29		18	,	145, 873
Total Upper Mississippi system	11, 800		100, 378	_	6, 393	•	4	2	29		178	10	0 567, 733
Ohio	. 1		22		165		!			1	4		242, 115
Lower Miasissippi		ļ			300							1	148, 300

Total Lower Mississippi system

TABLE 12.—FREIGHT TRAFFIC BY COMMODITIES.

PRINCIPAL COMMODITIES OF THE TOTAL FREIGHT, IN TONS, MOVED BY FREIGHT AND PASSENGER STEAMERS, FERRYBOATS, AND UNRIGGED CRAFT (OVER 5 TONS) OPERATING ON THE RIVERS OF THE MISSISSIPPI VALLEY IN 1889.

				PRO	DUCTS O	F AGRICU	LTURE.				PRODU	CTS OF 3	IINES.	
rivers.	Total.	Wheat.	Corn.	Other grain.	Mill prod- ucts.	Cotton.	Tobacco.	Fruit and vegeta- bles.	Нау.	Bituminous coal.	Iron ore.	Other ore.	Stone and gravel.	Clay and sand.
Total Mississippi valley	29, 405, 046	848, 442	786, 888	95, 588	90, 895	896, 292	27, 959	59, 610	91,579	8, 539, 229	574, 790	450	178, 631	142, 42
Upper Mississippi	4, 486, 421	23,000	1,000	2,870	630			700	·	22, 424			İ	
Saint Croix	846, 816	`! . 	l		١		; 							
Chippewa	325, 177			ļ	i <u></u> .		·	!	l			!		
Illinois	180, 264	18,000	·	· • • • • • • • • •	747		, 			2, 300		! 		
Missouri, Osage, and Gasconade	1, 119, 362	141, 658	50, 502		9, 598		252	62	5, 000	51, 162	1, 500			
Total for Upper Mississippi system.	6, 958, 340	182, 658	51, 502	2, 870	10, 975		252	762	5,000	75, 886	1, 500	! – !		
Ohio	7, 770, 565	125, 003	2, 585	2	620	18, 522			635	4, 018, 788	11.656	·		
Allegheny	365, 946	1						21	890				19, 050	51, 500
Monongahela	3, 294, 932				İ		1			3, 059, 418	33, 386		1	
Muskingum	10, 281	1,693							· • • • • • • • • • • • • • • • • • • •			l <u></u> .		
Little Kanawha	115, 657		!]. 	l		l		1, 100		l		
Great Kanawha	1, 145, 202			1	2, 577	l	l		ļ	941, 446		¦ 		
Big Sandy	286, 483	i	423			ļ .	 	2, 511	l					
Kentucky	256, 950		١	6, 991	1, 503		2, 783	:	4, 407		. 	. 	12, 861	
Green	819, 278			1, 431	773		4, 723	501	319	45, 904	.		788	·
Wabash	9 3, 178	1,811	15, 849	99	. 			1	٠:			 	5.754	
Cumberland	974, 316			20, 983	3, 628	j	10, 201	ļ	895			! 		89, 964
Tennessee	909, 078	5, 477	17. 984	5, 351	2, 267	12, 542	10,000	18, 657	7, 440	35, 888	528, 248	ļ .	20, 178	959
Total for Ohio system	16, 041, 866	133, 984	36, 841	34, 857	11, 368	31, 064	27, 707	21, 690	14,586	8, 102, 544	573, 290	. —— !	58, 631	142, 42;
Lower Mississippi	4, 374, 761	422, 800	498, 746	36, 057	9, 462	784, 008		16,000	5, 504	183, 848		į 		
White	86, 393					7, 403						450		
Arkansas	1, 663, 817	100,000	160, 282	21, 804	57, 655	35, 003		21, 158	66, 489	165, 888			120,000	
Yazoo	77, 380		22, 865	1		9, 138				!				
Washita	93, 707		16, 652										1	
Red	105, 145	6, 000			855	29, 676				11,063				
Total for Lower Mississippi system.	6, 401, 203	528, 800	698, 545	57, 861	67, 972	865, 228		37, 158	71, 993	360, 799		450	120, 000	
Red River of the North	3, 637	3,000	·	. 	580									

STATEMENT OF FREIGHT CARRIED AND TOWED ON THE LOWER MISSISSIPPI, INCLUDING COAL AND LUMBER FROM UPPER MISSISSIPPI AND OHIO RIVER SYSTEMS. (a)

		- · · ·				· · · · · · · · · · · · · · · · · · ·								
Lower Mississippi	7, 963, 507	422, 800	498, 746	36, 057	9, 462	784, 008		16, 000	5, 504	2, 288, 529		!		
Total Lower Mississippi system	9, 989, 949	528, 800	698, 545	57, 861	67, 972	865, 228	ļ	37, 158	71, 993	2, 465, 480		450	120,000	
Total Mississippi valley	32, 993, 792	848, 442	786, 888	93, 588	90, 895	896, 292	27, 969	59, 610	91, 579	10, 643, 910	574, 790	450	178, 631	142, 428
		<u> </u>		!			1	!		1	I	i		

α See page 15.

TABLE 12.—FREIGHT TRAFFIC BY COMMODITIES—Continued.

PRINCIPAL COMMODITIES OF THE TOTAL FREIGHT, IN TONS, MOVED BY FREIGHT AND PASSENGER STEAMERS, FERRYBOATS. AND UNRIGGED CRAFT (OVER 5 TONS) OPERATING ON THE RIVERS OF THE MISSISSIPPI VALLEY IN 1889—Continued.

	от	HER PRODUC	TS.				MANUFA	CTURES.				
RIVERS.	Ice.	Lumber and forest products.	Animal products.	Petro- leum and other oils.	Sugar.	Iron (pig and bloom).	Other iron manufac- tures.	Bar and sheet metal.	brick,	All other manu- factures.	Cotton seed and cotton- seed oil.	Merchan- disc, etc.
Total Mississippi valley	91,010	9, 390, 641	177, 376	3, 538	190, 873	7,775	92, 110	113	2, 375	74, 596	394, 788	6, 737, 07
Upper Mississippi	45, 050	3, 473, 189	3, 500	-		1			160	10		913, 88
Saint Croix		846, 016				 				' 	l	96
Chippewa		325, 477				<u>'</u>	!	<i></i> .	·	· ••••••	;	.
Illinois	41, 950	742	2,094	! !		i	!	l <u> </u>	l 	 .		114, 43
Missouri, Osage, and Gasconade		104, 384	11, 424	4	29		: :	 	18	į	j]	743, 76
Total	87, 00C	4, 749, 808	17, 018	4	29				178	10		1, 772, 88
Ohio		1, 131, 777	165		57. 881	: 	54, 297	1	4	55.163	:	2, 293, 46
Allegheny		276, 860		2, 450		!	300		200			12.65
Monongahela	i	81, 209	1, 407	_,,		,	2, 177			-,		117. 33
Muskingum	1	475					1	l				8.11
Little Kanawha		109, 079		678		:	1				l ·	4, 80
Great Kanawha		80, 468				:			863			119.84
Big Sandy		142, 950	676			\ \	'			34		139.88
Kentucky	1	199, 547	2, 350			1	1, 903			5, 051		19.55
Green	1	752, 541	501	!			98		168	2, 598		8,93
Wabaah		63, 300	"						100	271		6,00
Cumberland		810, 716	5, 623	į		5, 506				5,028	:	21, 77
Tennesser	10	163, 113	1,048	406	1,015	2, 269	50	112	962	4, 416	1, 800	68.88
Total	10	3, 812, 035	11,770	3, 534	58, 896	7, 775	58, 825	113	2, 197	74, 586	1, 800	2, 821, 34
Lower Mississippi					=	-=-						
	•••••	310, 654	300		130, 828		!				271, 809	1, 704, 74
White		63, 856	140 165				99.00		! !		2, 338	12,34
Arkansas	4,000	302, 690	148, 125				33, 285				85, 784	341,65
Yazoo	•••••	27, 861	65	•••••		•••••			·····		14, 124	3, 35
Washita		29, 110	98						ļ		5, 058	42, 78
Red	' '	4, 577			1, 120						13, 875	37,97
Total	4, 000	738, 748	148, 588		131, 94 8		33, 285				392, 988	2, 142, 84
Red River of the North		50					ļ					

STATEMENT OF FREIGHT CARRIED AND TOWED ON THE LOWER MISSISSIPPI, INCLUDING COAL AND LUMBER FROM UPPER MISSISSIPPI AND OHIO RIVER SYSTEMS—Continued.

Lower Mississippi	1, 794, 719	300		130, 828						271, 809	1, 704, 745
Total Lower Mississippi system 4,000	2, 222, 813	148, 588		131, 948		33, 285	l			392, 968	2, 142, 840
Total Mississippi valley 91,010	10, 784, 706	177, 376	3, 538	190, 873	7, 775	92 , 110	113	2, 375	74, 596	894, 788	6, 787, 075
	<u> </u>		 		<u></u>		<u> </u>			<u> </u>	

TABLE 13.—GENERAL ACCOUNT—PASSENGER AND FREIGHT STEAMERS.

NUMBER, TONNAGE, VALUE, OPERATIONS, FINANCIAL ACCOUNT, AND EMPLOYES, WITH WAGES PAID, OF PASSENGER AND FREIGHT STEAMERS (OVER 5 TONS) OPERATING ON THE RIVERS OF THE MISSISSIPPI VALLEY IN 1889.

		EQUIPMENT		TRAF	FIC.	INCOME	AND EXPEN	DITURE.	EMPLO	YÉS. (a)
RIVERS.	Number.	Tonnage.	Value.	Tons of freight moved.	Passengers carried.	Gross earnings.	Expenses.	Net earnings.	Men employed.	Total wages paid
Total for Mississippi valley	320	95, 215, 26	\$3.661.475	11, 159, 798	2, 384, 248	\$7, 651, 248	\$6, 580, 356	\$1,070,892	9, 101	#2. 603, 03 1
				9, 233, 598 b1, 926, 200						• •
Upper Mississippi	23	5, 732, 91	281, 700	518, 816	285, 676 e304	463, 872	380, 375	83, 497	576	
Chippewa				***********	c4, 441	*********				
Illinois	7	1, 811, 80	79, 200	{ 135, 572 644, 692	21,768	133, 764	112, 321	21, 443	162	35, 661
Missouri, Osage, and Gasconade	15	2, 458, 85	70, 300	799, 344	26. 561	129, 620	106, 288	23, 332	243	41.794
Total for Upper Mississippi sys-	45	10, 003, 56	431, 200	1, 498, 424	338, 750	727, 256	598, 984	128, 272	981	220. 788
tem.				1. 453, 732 644, 692						1
Ohio	85	32, 688, 82	1, 209, 825	2. 314. 548	1, 191, 732	2, 168, 215	1, 850, 248	317, 967	2, 559	688, 407
Allegheny	6	715.84	53, 000	§ 115, 696 6250, 250	5, 319	20, 630	18, 449	2, 181	31	10, 67 (
Monongahela	8	1, 471, 48	75, 700	151, 725	130. 537	130, 664	107, 179	23, 485	81	45, 446
Muskingum	4	333, 35	16, 750	10 281	37, 681	47, 571	35, 254	12, 317	67	17, 305
Little Kanawha	2	143.56	10,000	2,968	9, 451	24, 471	12,075	12, 396	18	4, 683
Great Kanawha	5	427.55	23, 500	112, 838	53, 599	46, 339	36, 288	10, 051	62	19, 410
Big Sandy	5	443. 65	16,000	156, 074 5130, 409	} 11,000	62, 075	46, 572	15, 503	99	30, 485
Kentucky	3	246, 52	15, 000	53, 047	9, 550	40, 910	23, 145	17, 765	66	12, 220
Green	5	316. 68	13, 500	172, 508 5646, 770	}. 11, 206	31, 889	27, 154	4. 735	43	5, 410
Wabash	2	243.33	7, 500	\$ 35,378 557,800	} 180	42. 320	22, 140	20, 180	50	13, 020
Cumberland	13	2, 631, 48	100, 800	217, 534	19, 160	179, 688	153, 412	26. 276	440	73. 345
Tennessee	23	5, 851, 24	210, 500	219, 170	27, 185	331, 345	289, 699	41, 646	609	140, 537
Total for Ohio system	161	45, 513, 50	1, 752, 075	4, 646, 996 3, 561, 767	1, 506, 594	3, 126, 117	2, 621, 615	504, 502	4. 125	1. 060, 944
Lower Mississippi	74	31, 898, 33	1. 186, 300	b1, 085, 229 2, 985, 399	518, 267	3, 040, 334	2, 742, 406	297, 928	2, 968	1, 032, 01
White	5	1, 229. 71	45. 000	22.537 663.856	4, 183	100, 697	82, 443	18, 254	119	41, 997
Arkansas	9	1, 785, 91	46, 700	5 1, 018, 923	2,651	57, 199	44, 881	12, 318	141	27, 75
		WAY TO		6 37, 138	,	144, 068	125, 469	18, 599	255	60, 754
Yazoo	11	1, 409. 68	62, 000	64,597	5, 391					1
Washita	3	994. 52	45, 000	i b29, 110	3 1, 204	125. 180	103, 220	21, 960	144	43, 750
Red	9	1, 968, 88	80, 700	89, 505 b15, 640	} 7, 208	824, 736	257, 092	67, 644	323	118, 349
Total for Lower Mississippi sys- tem.	111	39, 287. 03	1, 465, 700	5, 010, 741 4, 218, 099 6792, 642	538, 904	3, 792, 214	3, 355, 511	436, 703	3, 950	1, 319, 621
Red River of the North	3	411.17	12, 500	b3, 637	1	5. 661	4, 246	1, 415	45	1, 677

a See page 13.

b Towed by passenger and freight steamers.

c These were excursion passengers carried on towboats.

TABLE 14.—GENERAL ACCOUNT—TOWBOATS.

NUMBER. TONNAGE VALUE, OPERATIONS, FINANCIAL ACCOUNT, AND EMPLOYES, WITH WAGES PAID, OF TOWING STEAMERS (OVER 5 TONS) OPERATING ON THE RIVERS OF THE MISSISSIPPI VALLEY IN 1889.

		EQUIPMENT	. '	Tons of	INCOME	AND EXPEN	DITURE.	EMPL	YÉS. (G)
RIVERS.	Number.	Tounage.	Value.	freight moved.	Gross earn- ings.	Expenses.	Net carnings.	Men employed.	Total wages paid
Total for Mississippi valley	290	53, 875. 55	\$3, 422, 983	17, 133, 342	\$6, 036, 748	\$4,098,723	\$1,938,025	4,742	\$1, 787, 99
Upper Mississippi	77	9, 736, 51	621, 800	3, 428, 548	1, 249, 850	812, 401	437, 449	1, 239	385, 36
Saint Croix	10	1, 129, 82	88, 500	846, 016	154, 597	83, 481	71, 116	159	41, 60
ChippewaIllinois	1	108.00	7, 000	325, 477	18. 244	9, 844	8, 400	16	5, 04
Missouri. Osage, and Gasconade	10	573. 37	41,700	161, 983	62, 357	50, 417	11, 940	70	24, 99
Total for Upper M ississippi system.	98	11, 547. 70	759, 000	4, 762, 024	1, 485, 048	956, 143	528, 905	1, 484	457,00
OhioAllegheny	114	26, 708. 08	1, 680, 600	5, 211, 119	2, 168, 020	1, 657, 136	510, 884	2,069	910.94
Monongahela	25	3, 441. 97	246, 700	3, 143, 207	306, 810	233, 447	73, 363	287	120, 40
Muskingum	2	219. 35	7, 000	(b)	7, 361	4, 915	2, 446	11	3, 40
Little Kanawha	1	34. 93	4,000	112, 689	2,000	1, 668	332	5	79
Great KanawhaBig Sandy	4	692. 66	39, 333	1.032,364	47, 809	31, 938	15, 871	63	16, 91
Kentucky	1	77. 88	4,000	203, 903	17. 911	10, 721	7, 190	15	4.11
Green		•••••				· · · · · · · · · · · · · · · · · · ·	•	·	• i • • • • • • • • • • • • • • • • • •
Wabash				·				,	
Cumberland	4	304.09	8. 500	756, 782	25, 948	17, 527	8, 421	25	11.06
Tennessee	6	1, 183. 71	46, 250	689, 908	37, 328	28, 160	9, 168	63	13, 39
Total for Ohio system	157	32, 662. 67	2, 036, 383	11, 149, 972	2, 613, 187	1, 985, 512	627, 675	2, 538	1,081,06
Lower Mississippi		9, 665. 18	627. 600	1, 221, 346	1, 938, 513	1, 157, 068	781, 445	720	249, 92
White				i	·				· •••••
Arkansas					.				•••••
Yasoo	٠	- 	······	,	·				
Red	 	 		· · · · · · · · · · · · · · · · · · ·					 .l
Total for Lower Mississippi system.	35	9, 665. 18	627. 600	1, 221, 346	1, 938, 513	1, 157, 068	781.445	720	249, 92
Red River of the North							=====		=

a See page 13.

b Chartered to the United States government in 1889.

RIVERS OF THE MISSISSIPPI VALLEY.

TABLE 15.—GENERAL ACCOUNT—FERRYBOATS.

NUMBER, TONNAGE, VALUE, OPERATIONS, FINANCIAL ACCOUNT, AND EMPLOYÉS. WITH WAGES PAID, OF FERRY STEAMERS (OVER 5 TONS) OPERATING ON THE RIVERS OF THE MISSISSIPPI VALLEY IN 1889.

	,	EQUIPMEN	г.	TRA	FFIC.	INCOME	AND EXPEN	DITURE.	EMPLOY	s. (a)
RIVERS.	Number.	Tonnage.	Value.	Tons of freight moved.	Passengers carried.	Gross earnings.	Expenses.	Net earnings.	Men employed.	Total wages paid.
Total for Mississippi valley	163	18, 593. 40	\$1,056,250	1, 111, 906	8, 474, 646	\$1, 196, 817	\$818, 634	\$378, 183	893	\$456, 676
Upper Mississippi	. 24	2, 144. 39 26. 98	170, 200 3, 000	539, 057 800	1, 192, 409 12, 000	131, 528 1, 485	92.078 1,050	39, 450 435	125	53, 505 700
Illinois Missouri, Osage, and Gasconade	2 24	48. 45 1, 685. 49	1,000 94,100	158, 035	28, 600 249, 975	2, 037 102, 493	1,726 72,772	311 29, 721	4 104	1, 100 47, 352
Total for Upper Mississippi system.	. 51	3, 905. 31	268, 300	697, 892	1, 482, 984	237, 543	167, 626	69, 917	235	102, 657
Ohio	. 54	10, 918. 00	350, 250	244, 898	3, 924, 074	431, 267	246, 893	184, 374	266	142, 126
Allegheny	3	263. 39	15, 000		130, 850	11, 238	10, 017	1, 221	12	7. 485
Little Kanawha Great Kanawha Big Sandy Kentucky	. 2	102.47	8, 000		38, 525	13, 283	6, 965	6, 318	8	3, 420
Green										· · · · · · · · · · · · · · · · · · ·
Cumberland	. 2	259. 67	3, 000		903, 100	32, 133	13, 034	19, 099	15	10, 800
Total for Ohio system	. 61	11, 543, 53	376, 250	244, 898	4, 996, 549	487, 921	276, 909	211, 012	301	163, 831
Lower Mississippi	45	2, 831. 74	392, 200	168, 016	1, 933, 048	442, 169	362, 431	79, 738	337	183, 972
Arkansas Yazoo. Washita	. 6	312. 82	19, 500	1, 100	62, 065	29, 184	11, 668	17, 516	20	6, 216
Red Total for Lower Mississippi system.	51	3, 144, 56	411,700	169, 116	1, 995, 113	471. 353	374, 099	97, 254	357	190, 186
Red River of the North							· · · · · · · · · · · · · · · · · · ·	'		

a See page 13.

TABLE 16.—GENERAL ACCOUNT—HARBOR BOATS.

NUMBER, TONNAGE, VALUE, FINANCIAL ACCOUNT, AND EMPLOYES, WITH WAGES PAID, OF HARBOR BOATS OPERATING IN THE PORTS OF THE MISSISSIPPI VALLEY IN 1889.

		BQUIPMENT		INCOM	E AND EXPEN	DITURE.	BMPL	YĖS. (A)
RIVERS.	Number.	Tonnage.	Value.	Gross earnings.	Expenses.	Net earnings.	Men employed.	Total wages paid
Total for Mississippi valley	141	18, 981. 96	\$1, 028, 350	\$1, 291, 080	\$940, 989	\$350 , 0 9 1	1,016	\$409, 367
Upper Mississippi	25	994. 26	62, 250	102, 147	71, 503	30, 644	117	37. 075
Saint Croix	. 4	101. 55	7, 500	13, 102	9, 172	3, 930	15	5, 287
Chippewa	ļ	 	Í	9 /	·			
Illineis		j. .	l					· · · · · · · · · · · · · · · · · · ·
Missouri, Osage, and Gasconade			,			.1		
Total for Upper Mississippi system		1, 095. 81	69, 750	115, 249	80, 675	34, 574	132	42, 36
					,			
Ohio	48	4, 275. 11	301,000	254, 934	198, 282	56, 652	462	152, 497
Allegheny	1			9				•
Monongahela	1	15.00	1 200	550	400	. 120		
Muskingum Little Kanawha	i .	15. 09 25. 64	1, 300 3, 000	3, 450	420 2,600	130	3	240
Great Kanawha	1	822. 49	41,000	82, 575	61, 486	21, 089	72	1, 065 23, 076
Big Sandy	1	344.02	•	32, 845	23, 307	9, 536	42	13, 446
Kentucky	1	341.02	24,000	32,000	20, 001	8, 550	1 32	1 13, 940
Green							!·····	•.•••••
Wabash	i	l						
Cumberland								• • • • • • • • • • • • • • • • • • • •
Tennessee		·				·, · · · · · · · · · · · · · · · · · ·		· · · · · · · · · · · · · · · · · · ·
Total for Ohio system		5, 482. 35	370, 300	374, 352	286, 095	88, 257	583	190, 332
								·
Lower Mississippi	i i	12, 403. 80	588, 300	801, 479	574, 219	227, 260	301	176, 573
White	1					•'···		
Уадоо	1	l		i				
Washita								
Red								
Total for Lower Mississippi system	53	12, 403. 80	588, 300	801, 479	574, 219	227. 260	301	176, 573
D. J. Dieser of Alic Woods			·			: 	!- 	
Red River of the North	[• • • • • • • • • • • • • • • • • • • •						

a See page 13.

TABLE 17.—GENERAL ACCOUNT—MISCELLANEOUS CRAFT.

NUMBER, TONNAGE, VALUE, FINANCIAL ACCOUNT, AND EMPLOYES, WITH WAGES PAID, OF MISCELLANEOUS CRAFT OPERATING IN THE PORTS OF THE MISSISSIPPI VALLEY IN 1889.

		EQUIPMENT.		INCOME	AND EXPEND	TTRE.	EMPLOYÉ	.s. (a)
RIVERS.	Number.	Tonnage.	Value.	Gross earnings.	Expenses.	Net earnings.	Men employed.	Total wages paid.
Total for Mississippi valley	61	6, 718. 65	\$466 , 050	\$ 161, 640	\$161, 640		244	\$81, 89
Upper Mississippi	. 10	1, 990, 75	139, 800	47, 389	47, 389		111	20, 20
ChippewaIllinois			• • • • • • • • • • • • • • • • • • • •	·	!	*****		. .
Missouri, Osage, and Gasconade			• • • • • • • • • • • • • • • •	i 	!	;		
Total for Upper Mississippi system	. 10	1, 999, 75	139, 800	47, 389	47, 389		111	20, 20
Ohio	25	2, 978. 83	169, 200	48, 218	48, 218		68	23.86
Alleghent					: !			
Monongahela	12	1, 057. 31	82, 200	48, 218	48, 218	! 	42	22, 68
Muskingum		••••••	• • • • • • • • • • • • • • • • •				·	• • • • • • • • • •
Little Kanawha	1		1.000	1,000	1,000		1	54
Great Kanawha	2	58.78	3, 500	3, 000	3, 000	· · · · · · · · · · · · · · · · · · ·	. 5	2, 36
Big Sandy		<u>-</u>	• • • • • • • • • • • • • • • • • • • •		•	¦	·	· · · · · · · · · · · · · · · · · · ·
Kentucky			• • • • • • • • • • • • • • • • • • •		• • • • • • • • • • • • • • • • • • • •	'	• • • • • • • • • • • • • • • • • • • •	
Green		` <u>-</u>	• • • • • • • • • • • • • • • • • • • •	' 	i .	ļi.	•••••	· · · · · · · · · · · · · · ·
Wabash			• • • • • • • • • • • • • • • • • • •	· • • • • • • • • • • • • • • • • • • •	••••	·····	•••••	· · · · · · · · · · · · · · · · · · ·
Cumberland	<u> </u>	: :'	• • • • • • • • • • • • • • • • • • •		· · · · · · · · · · · · · · · · · · ·	• • • • • • • • • • • • • • • • • • • •	!	• • • • • • • • • •
Tennessee			• • • • • • • • • • • • • • • • • • • •	!		·		· · · · · · · · · · · · · · · · · · ·
Total for Ohio system	. 40	4, 118. 97	255, 900	100,436	100, 436		116	49, 45
Lower Mississippi	11	599. 93	70, 350	13, 815	13, 815		17	12, 23
White							l	· · · · · · · · · · · · · · ·
Arkansas		'	: 	 	!	. :		
Yazoo								
Washita		[!]		 				
Red						! !		
Total for Lower Mississippi system	. 11	599, 93	70, 350	13, 815	13, 815		17	12. 23

a See page 13.

TABLE 18.—GENERAL ACCOUNT—NO TRAFFIC REPORT.

NUMBER, TONNAGE, AND VALUE OF ALL CRAFT (OVER 5 TONS) OWNED IN THE PORTS OF THE MISSISSIPPI VALLEY, FOR WHICH NO TRAFFIC REPORT WAS RECEIVED FOR 1889.

	1	EQUIPMENT.		HIVERS.		EQUIPMENT.		
RIVERS.	Number.	Tonnage.	Value.	nivaso.	Number.	Tonnage.	Value.	
Total for Mississippi valley		17. 387. 07	\$904 , 143	Ohio-Continued.				
Upper Mississippi	29	4, 370, 39	209, 619	Green	1	53. 67	\$2,500	
Chippewa				Tennessee			1, 000	
Missouri, Osage, and Gasconade	' 1	42. 18	3, 60 0	Total for Ohio system	59	7, 874. 81	401. 802	
Total for Upper Mississippi system	32	4, 412, 52	213, 219	Lower Mississippi	47	5, 077. 09	287, 62	
)hio		7, 466, 78	388, 302	White	1			
Monougahela				Yazoo	1 1			
Muskingum				Washita				
Little KanawhaGreat Kanawha	1 1	282. 18	8, 000	Total for Lower Mississippi system.	ļ · '	5. 077. 09	287, 622	
Big Sandy Kentucky	. 1	49. 91	2. 000	Red River of the North	; 1 !	22. 65	۔۔۔۔۔۔۔۔۔۔۔ 1,50ء	

TABLE 19.—GENERAL ACCOUNT—RESUME.

NUMBER, TONNAGE, VALUE, OPERATIONS, FINANCIAL ACCOUNT, EMPLOYÉS, AND WAGES PAID OF ALL STEAMERS REGISTERED IN THE PORTS OF THE RIVERS OF THE MISSISSIPPI VALLEY IN 1889.

		BQUIPMEN	т.		TRAFFIC.		INCOME	AND EXPENDI	TURE.	EMPL	OYÉS. (a)
RIVERS.	Number.	Tonnage.	Value.	Miles traveled.	Freight moved.	Passengers carried.	Gross earnings.	Expenses.	Net earnings.	Number making up ordi- nary crews.	Total wages pai during year.
Total for Mississippi valley.	1, 114	210, 771. 89	\$10, 539, 251	7. 316, 545	29, 405, 046	10, 858, 894	\$16, 337, 533	\$12,600 ,342	\$3, 737, 191	15, 996	\$5, 338, 8
Upper Mississippi:											-
Passenger and freight	23	5, 732. 91	281, 700	[518, 816	285, 676	463, 872	380, 375	83, 497	576	143, 3
Towboats	. 77	9, 736. 51	621, 800		3, 428, 548		1, 249, 850	812, 401	437, 449	1, 239	385, 3
Ferryboats	24	2, 144. 39	170, 200	·	539, 057	1, 192, 409	131, 528	92, 078	39, 450	125	53,
Harbor boats		994. 26	62, 250	h			102, 147	71, 503	30, 644	117	37,0
Miscellaneous		1, 999. 75	139, 800				47, 389	47, 389	· · · · · · · · · · · · · · · · · · ·	111	20.
No traffic reported	29	4, 370. 39	209, 619					•••••		 	
Total	188	24, 978. 21	1, 485, 369	1, 101, 990	4, 486, 421	1, 478, 085	1, 994,,786	1, 403, 746	591, 040	2, 168	639, 4
Saint Croix: Towboats	10	1 190 00	90 500	i	. 048 018	204	154 507	99 (91	71 110	150	1
Ferryboats	10	1, 129. 82 26. 98	88, 500 3, 000		846, 016	304 12,000	154, 597 1, 485	83, 481 1, 050	71, 116 435	159 2	41.6
Harbor boats	4	101. 55	7, 500			12,000	13, 102	9, 172	'	15	5. 3
							!		. 0,000	13	i —
Total	. 15	1, 258. 35	99, 000	67, 990	846, 816	12, 304	169, 184	93, 703	75. 481	176	47,5
Towboats	1	108, 00	7,000	12,000	325, 477	- 4,441	18, 244	9, 844	8, 400	16	. 5,0
Illinois:				<u> </u>			·			<u> </u>	
Passenger and freight	7	1, 811. 80	79, 200	:	180, 264	21, 768	133, 764	112, 321	21, 443	162	35, 6
Ferryboats	i		1,000		100, 209	28, 600	2, 037	1,726	311	. 4	1,1
		! : !		<u> </u>		<u>'</u>	,				
Total	. 9	1, 860. 25	80, 200	83, 436	180, 264	50, 368	135, 801	114, 047	21,754	166	36, 7
Missouri, Osage, and Gas-		1			-			- 111711-177.			
conade:				1							
Passenger and freight		2, 458, 85	70, 300		790, 344	26, 561	129, 620	106, 288	23, 332	243	41,7
Towboats		573. 37 1, 685. 49	41,700	7	161, 983 158, 035	249, 975	62, 357	50, 417	11,940	70	24,9
Ferryboats No traffic reported	3	42. 13	94, 100 3, 600		138,033	249, 913	102, 493	72, 772	29, 721	104	47,3
no traint reported			3,000								
Total	52	4, 759. 84	209, 700	159, 239	1, 119, 362	276, 536	294, 470	229, 477	64, 993	417	114, 1
Ohio:							! '!				
Passenger and freight	85	32, 688. 82	1, 209, 825		2, 314, 548	1, 191, 732	2, 168, 215	1, 850, 248	317, 967	2, 559	688. 4
Towboats	114	26, 708. 08	1, 680, 600	¦	5, 211, 119		2, 168, 020	1, 657, 136	510, 884	2, 069	910, 9
Ferryboats	54	10, 918. 00	350, 250	<u> </u>	244, 898	3. 924, 074	431, 267	246, 893	184, 374	266	142, 1
Harbor boats	48	4, 275. 11	301, 000	li			254, 934	198, 282	56, 652	462	152, 4
Miscellaneous	25	2, 978. 83	169, 200	······································			48, 218	48, 218		68	23, 8
No traffic reported	54	7, 466, 78	388, 302	1		•••••					
Total	380	85, 035. 62	4, 099, 177	2, 696, 020	7, 770, 565	5, 115, 806	5, 070, 654	4, 000, 777	1, 069, 877	5, 424	1, 917, 8
Allegheny: Passengerand freight	6	715.84	53, 000	2, 040	365, 946	5, 319	20, 630	18, 449	2, 181	31	10, 6
Monougahela:											
Passenger and freight	8	1, 471. 48	75, 700	• • • • • • • • • • • • • • • • • • • •	151, 725	130, 537	130, 664	107, 179	23, 485	81	45, 4
Towboats	25	3, 441. 97	246, 700	• • • • • • • • • • • • • • • • • • • •	3, 143, 207	••••	306, 810	233, 447	73, 363	287	120, 4
Ferryboats	3	263, 39	15, 000		• • • • • • • • • • • • • • • • • • • •	130, 850	11, 238	10, 017	1, 221	12	7, 41
Miscellaneous	12	1, 057, 31	82, 200				48, 218	48, 218		42	22.0
Total	48	6, 234. 15	419, 600	130, 898	3, 294, 932	261, 387	496, 930	398, 861	98, 009	422	196, 0
Inskingum: Passenger and freight	,	333. 35	16, 750	,	10, 281	37, 681	47, 571	28 084	10 017		
Towboats	2	219. 35	7,000		10, 201	57,061	7, 361	35, 254 4, 915	12, 317 2, 446	67 11	17,3
Harbor boats	1	15. 09	1,300				550 j	420	2, 440 130	3	3, 4 2
		'			-						
Total		567. 79	25, 050 :	27, 055	10, 281	37, 681	55, 482	40, 589	14, 893	81	20, 9
ittle Kanawha:	!			" 							
Passenger and freight	2	143, 56	10,000		2, 968	9, 451	24, 471	12, 075	12, 396	18	4.6
Towboats	1.	34. 93	4, 000		112, 689	[2,000	1, 668	332	5	7
Harbor boats	1	25. 64	3,000	·····		•••••	3, 450	2, 600	850	4	1, 0
Miscellaneous	1	24. 05	1,000		•••••		1, 000	1,000		1	5
Total	5	228. 18	18, 000	14, 740	115, 657	9, 451	30, 921	17, 343	13, 578	28	7,0

a See page 13.

TABLE 19.—GENERAL ACCOUNT—RESUME—Continued.

NUMBER, TONNAGE, VALUE, OPERATIONS, FINANCIAL ACCOUNT, EMPLOYES, AND WAGES PAID OF ALL STEAMERS, ETC.—Continued.

		EQUIPMEN	T.		TRAPPIC.	!	INCOME	AND EXPENDI	TURE.	EMI	LOYÉS.
RIVERS.	Number.	Tonnage.	Value.	Miles traveled.	Freight moved. (Tons.)	Passengers carried.	Gross carnings.	Ехрепяев.	Net earnings.	Number making up ordi- nary. crews.	Total wages paid during year.
Great Kanawha:						! !	,				
Passenger and freight	5	427. 55	\$23,500		112, 838	53, 599	\$46, 339	\$36, 288	\$10,051	62	\$19, 410
Towboats	4	692, 66	39, 333		1, 032, 364	,	47, 809	31, 938	15, 871	63	16, 919
Ferryboats	2	102. 47	8,000			38, 525	13, 283	6, 965	6,318	8	3, 420
Harbor boats	6	822. 49	41,000			1 35,020	82, 575	61, 486	21, 089	72	23, 070
Miscellaneous	2	58. 78	3, 500				3,000	3, 000	1	5	2, 360
No traffic reported	2	282. 18	8, 000				5,555				2,00
Total	21	2, 386, 13	123, 333	59, 680	1, 145, 202	92, 124	193, 006	139, 677	53, 329	210	65, 18
Big Sandy:										===	
Passenger and freight	5	443. 65	16, 000	a l	286, 483	11,000	62, 075	46. 572	15, 503	99	30, 485
Harbor boata	3	344.02	24,000		200, 400	11,000	32, 843	23, 307	9,536	42	13, 440
IIII IN OORGA			24,000								
Total	8	787. 67	40,000	47, 350	286, 483	11,000	94, 918	69, 879	25, 039	141	43, 925
Kentucky:											
Passenger and freight	3	246. 52	15, 000		53, 047	9, 550	40, 910	23, 145	17, 765	66	12, 220
Towboats	1	77. 88	4, 000		203, 9 03		17, 911	10, 721	7, 190	15	4, 110
No traffic reported	1	49. 91	2,000	j					; 		l
Total	5	374. 31	21, 000	12, 588	256, 950	9, 550	58, 821	33, 866	24, 955	81	16, 330
Green:	- - - - - - - - - - -				=	j=					
Passenger and freight	5	316.68	13. 500	10, 300	819, 278	11, 200	31, 889	27, 154	4, 735	43	5, 416
Wabash:					=-:						<u> — .</u>
Passenger and freight	2	040.00			02 170	100	40.000	00 140	90 100		12.000
No traffic reported	1	243. 33	7, 500	•••••	93, 178	180	42, 320	22, 140	20, 180	50	13, 020
No trame reported		53. 67	2, 500								
Total	3	297. 00	10.000	12, 700	93, 178	180	42, 320	22, 140	20, 180	50	13, 020
Cumberland:	- '					·					^-
Passenger and freight	13	2, 631. 48	100, 800		217, 534	19, 160	179, 688	153, 412	26, 276	440	73, 345
Towboats	4	304.09	8,500		756, 782		25, 948	17, 527	8, 421	25	11,685
Total	17	2, 935. 57	109, 300	144, 968	974, 316	19, 160	205, 636	170, 939	34, 697	465	84, 430
Tennessee :									l 	·	
Passenger and freight		E 0E1 04	010 500		010 170	07.105	201 245	000 800	41 848	***	140, 537
Towboats	23	5, 851, 24 1, 183, 71	210, 500 46, 250		219, 170 689, 908	27, 185	331, 345 37, 328	289, 699	41, 646 9, 168	609	13, 398
Ferryboats	2	259. 67	3,000		009, 900	903, 100	32, 133	28, 160 13, 034	19,099	15	10, 800
No traffic reported	1	238. 07	1,000			203, 100	32, 133	13,034	19,099	15	10,000
No traine reported	1		1,000								
Total	32	7, 316. 89	28 0, 750	420, 894	909, 078	930, 285	400, 808	330, 893	69, 913	687	164, 735
Lower Mississippi:	mail mail =			1							
Passenger and freight	74	31, 898. 33	1, 186, 300	İ	2, 985, 399	518, 267	3, 040, 334	2, 742, 406	297, 928	2, 968	1, 032, 012
Towboats	35	9, 665. 18	627, 600		1, 221, 346		1, 938, 513	1, 157, 068	781, 445	720	249, 927
Ferryloats	45	2, 831.74	392, 200		168, 016	1.933,048	442, 169	362, 431	79, 738	337	183, 972
Harbor boats	53	12, 403. 80	588, 300	1			801, 479	574, 219	227, 260	301	176, 573
Miscellaneous	11	599. 9 3	70, 350				13, 815	13, 815		17	12, 232
No tráffic reported	47	5, 077. 09	287. 622	1							
Total	265	62, 476. 07	3, 152, 372	1, 826, 254	4, 374, 761	2, 451, 315	6, 236, 310	4, 849, 939	1, 386, 371	4, 343	1, 654, 710
White:											1,000,770
Passenger and freight	5	1, 229. 71	45, 000	68, 786	86, 393	4, 183	100, 697	82, 443	18, 254	119	41, 997
										=	===:
Arkansas:							ţ				
Passenger and freight	9 !	1. 785. 91	46, 700		1, 662, 717	2, 651	57, 199	44, 881	12, 318	141	27, 753
Ferryboats	6	312. 82	19, 500		1, 100	62, 065	29, 184	11, 668	17, 516	20	6, 210
Total	15	2, 098. 73	66, 200	61, 689	1, 663, 817	64, 716	86, 383	56, 549	29, 834	161	33, 969
Yazoo:						i=	!	. sai i		i	
Passenger and freight	11	1. 409. 68	62, 000	121, 216	77, 380	5, 391	144,068	125, 469	18, 599	255	60, 754
-	i		·				=		10,000		==
Washita:		004 50	45 000	40 000	00 505						40.50
Passenger and freight	3	994. 52	45,000	60, 828	93, 707	1, 204	125, 180	103, 220	21, 960	144	43, 750
Red:											
Passenger and freight	9	1, 968. 88	80, 700	172, 800	105, 145	7, 208	324, 736	257, 092	67, 644	323	113, 349
Red River of the North:							-	±5 : 11			-
Freight	3	411. 17	12, 500		3, 637		5, 661	4, 346	1,415	45	1,677
No traffic reported	1	22. 65	1, 500							İ. 	
T-4-1									!		
Total	4	433. 82	14, 000	1, 084	3, 637	[5, 661	4, 246	1,415	45	1, 67

TABLE 20.—COMPARATIVE STATISTICS.

NUMBER, TONNAGE, AND VALUE OF STEAMERS AND UNRIGGED CRAFT OWNED ON THE RIVERS OF THE MISSISSIPPI VALLEY IN 1890 AND 1889, GIVEN BY LOCALITIES.

			TOTAL, ALL CRAFT. STEAMERS.						UNRIGGED.		
RIVERS.	Year.	Number.	Tonnage.	Value.	Number.	Tonnage.	Value.	Number.	Tonnage.	Value.	
Total Mississippi valley	1889	5, 052 7, 453	1, 161, 616, 86 3, 393, 379, 89	\$16, 379, 400 15, 335, 005	1, 198 1, 114	251. 792. 85 210, 771. 89	\$12,009,400 10,539,251	3, 854 6, 339	909, 824, 01 3, 182, 608, 00	\$4, 370, 000 4, 795, 754	
Upper Mississippi	1880 1889	652 509	242, 689, 59 203, 889, 81	4, 339, 050 1, 896, 587	366 213	83. 918. 09 28, 204. 81	3, 004, 059 1, 671, 569	a286 296	158, 771, 50 175, 685, 00	1, 335, 000 225, 01s	
Ohio	1880 1889	4, 041 6, 245	858, 524. 99 2, 920, 468. 83	8, 696 , 500 8, 696 , 341	473 537	107, 472. 48 107, 195, 83	5, 661 , 500 5, 192 , 710	3, 568 5, 708	751, 052, 51 2, 813, 273, 00	3, 035 , 0 0) 3, 50 3, 6 :1	
Lower Mississippi	1889	315 580	48, 303. 06 247, 957. 59	2, 851, 550 4, 476, 472	315 308	48, 303. 06 70, 177. 59	2, 851, 550 3, 451, 272	272	177, 780. 00	1, 025, 200	
Missouri, etc	1880 1889	119	12, 099, 22 21, 063, 66	492, 300 265, 605	44 56	12. 099. 22 5, 193. 66	492, 300 223, 700	63	15, 870. 00	41.900	

a Including all unrigged owned on both the Upper and Lower Mississippi.

TABLE 21.—COMPARATIVE STATISTICS.

NUMBER, TONNAGE, AND VALUE OF ALL STEAM VESSELS OWNED ON THE RIVERS OF THE MISSISSIPPI VALLEY IN 1880 AND 1889, GIVEN BY OCCUPATIONS.

CLASSES.	Year.	Number.	Tonnage.	Value.
Total, all classes	1880	1, 198	251, 792, 85	\$12, 009, 400
I Otal, all Classes	1889	1, 114	210, 771, 89	10, 539, 251
Passenger and freight	1880	503	166, 375, 82	7, 059. 900
Passenger and freight	1880	320	95, 215. 26	3, 661, 475
T	1880	177	21, 306, 59	1, 022, 900
Ferry	1889	163	18, 593, 40	1, 056, 250
The state of the s	1880	477	63, 224. 95	3, 800, 500
Towing and harbor	1889	431	72. 857. 51	4, 451, 333
Mar Barrer	1880	41	885.49	126, 100
Miscellaneous	1889	200	24, 105. 72	1, 370, 193

TABLE 22.—COMPARATIVE STATISTICS.

GROSS EARNINGS BY ALL CRAFT OPERATING ON THE RIVERS OF THE MISSISSIPPI VALLEY IN 1880 AND 1889, TOGETHER WITH THE AMOUNT PAID OUT IN WAGES DURING THOSE YEARS.

RIVERS.	Year.	Gross earnings.	Paid in wages
m. 134	(1880	\$20, 293, 17 3	\$6, 979, 226
Total Mississippi valley	(1889	16, 337, 533	5, 338, 862
	(1880	7. 668. 864	2, 204, 644
Upper Mississippi	⋯⋯{, 1889	2, 318, 015	728, 878
011	(1880	7, 628. 924	2, 847, 085
Ohio	1889	6. 702. 013	2, 545, 625
	c ¹ 1880	4, 168, 989	1, 626, 029
Lower Mississippi		7. 017. 374	1, 948, 541
.	(1880	826, 396	301, 468
Missouri, etc	1889	300, 131	115. 818

RIVERS OF THE MISSISSIPPI VALLEY.

TABLE 23.—COMPARATIVE STATISTICS.

NUMBER OF MEN CONSTITUTING TOTALS OF ORDINARY CREWS EMPLOYED ON ALL CRAFT OPERATING ON THE RIVERS OF THE MISSISSIPPI VALLEY IN 1890 AND 1899, TOGETHER WITH WAGES PAID, AND CALCULATED AVERAGES OF ANNUAL PAY, AND DECREASE OR INCREASE PER MAN, GIVEN BY LOCALITIES.

rivers.	Year.	Total num- ber men ordinary crews.	Total wages paid.	Average annual wages per man.	Average annual in- crease in wages per man.	A verage annual de- crease in wages per man.
Total Mississippi valley	1880 1889	23, 616 15, 996	\$6, 979, 226 5, 338, 862	\$295, 53 333, 76	\$38. 23	
Upper Mississippi	1880 1889	7, 824 2, 526	2, 204, 644 728, 878	281. 78 288. 55	6, 77	
Ohio	1880 1889	9, 090 7, 668	2, 847, 085 2, 545, 625	313. 21 332. 20	18. 99	
Lower Mississippi	1880 1889	5, 655 5, 345	1, 626, 029 1, 948, 541	287, 54 364, 55	77. 01	
Missonri, etc	1880 1889	1, 047 462	301, 468 115, 818	287. 94 250. 69		\$ 37. 25

TABLE 24.—COMPARATIVE STATISTICS.

NUMBER OF TONS OF FREIGHT MOVED AND NUMBER OF PASSENGERS CARRIED BY ALL CRAFT OPERATING ON THE RIVERS OF THE MISSISSIPPI VALLEY IN 1880 AND 1889, GIVEN BY LOCALITIES.

	_		FREIGHT.		PASSENGER.			
RIVERS.	Year.	Total.	By steamers.	On barges.	Total.	Regular.	Ferry.	
Total Mississippi valley	1880	18, 946, 522 29, 405, 046	13, 557, 884 10, 345, 504	5, 388, 638 19, 059, 542	6, 728, 067 10, 858, 894	1, 528, 083 2, 384, 248	5, 199, 984 8, 474, 646	
Upper Mississippi	1880	8, 565, 338	698, 218	2, 867, 120	1, 299, 553	341, 371	958, 182	
Ohio	1889 1880 1889	5, 838, 978 11, 738, 909 16, 041, 866	1, 194, 245 9, 217, 391 3, 806, 665	4, 644, 733 2, 521, 518 12, 235, 201	1, 545, 198 3, 961, 798 6, 503, 143	312, 189 960, 936 1, 506, 594	1, 233, 009 3, 000, 862 4, 996, 549	
Lower Mississippi	1880	3, 576, 972 6, 401, 203	3, 576, 972 4, 387, 215	2, 013, 988	1, 385, 357 2, 584, 017	212, 417 538, 904	1, 172, 940 1, 995, 113	
Missouri, etc	1880 1889	65, 303 1, 122, 999	65, 303 957, 379	165, 620	81, 359 276, 536	13, 359 26, 561	68, 000 249, 975	

TRAN-Pt. 2-29

TABLE 25.—COMPARATIVE STATISTICS.

NUMBER AND TONNAGE OF ALL STEAMERS AND BARGES REGISTERED IN THE CUSTOMS DISTRICTS OF THE MISSISSIPPI VALLEY FOR THE YEARS 1880 TO 1889, INCLUSIVE. (a)

	1880							1881						
CUSTOMS DISTRICTS.	TOTAL. STEAL			AMERS.	MERS. BARGES.			TOTAL.		STEAMERS.		BARGES.		
	Number.	Tonnage.	Number.	Tonnage.	Number.	Tonnage.	Number.	Tonnage.	Number.	Tonnage.	Number.	Tonnage.		
Total	2, 295	478, 792. 03	1, 225	256, 915. 99	1,070	216, 876, 04	1, 424	393, 946, 89	1, 191	246, 997. 37	233	146, 949. 5		
New Orleans, Louisiana	173	30, 113. 39	167	29, 413, 31	6	700.08	177	31, 432. 02	171	30, 731. 94	6	700, 0		
Natchez, Mississippi	3	191.83	3	191. 83					ļ	00,102.01				
Vicksburg, Mississippi	29	3, 436, 49	27	2, 963, 32	2	473, 17								
Memphis, Tennessee	66	10, 779, 65	66	10, 779, 65				11, 302, 58	65	11, 302, 58	1			
Nashville, Tennessee	26	3, 621, 37	26	3, 621. 37			29	4, 599, 08	29	4, 599, 08				
Louisville, Kentucky	53	17, 749, 68	53	17, 749, 68			58	17, 539, 28	58	17, 539, 28				
Saint Louis, Missouri	319	141, 974. 94	162	59, 699. 13	157	82, 275, 81	313	180, 119, 99	153	54, 392. 72	160	125, 727.		
Burlington, Iowa	31	2, 414, 25	31	2, 414, 25			42	4, 624, 03	42	4, 624, 03	 	,		
Dubuque, Iowa	29	3, 696, 79	29	3, 696, 79			31	3, 757. 18	31	3, 757. 13				
Lacrosse, Wisconsin	40	6, 227, 86	39	6, 200, 61	1	27, 25	45	6, 626, 74	44	6, 599. 49	1	27.		
Minnesota (b)	80	8, 141, 78	48	5, 873, 06	32	2, 268, 72	54	6, 908, 80	45	6, 003, 50	9	985.		
Galena, Illinois	25	2, 267, 41	25	2, 267, 41		2,300.12	23	2, 119, 97	23	2, 119. 97				
Cairo, Illinois	41	7, 888, 58	28	4, 323, 36	13	3, 565. 22	43	7, 194, 76	31	3, 849. 03	12	3, 345.		
Evansville, Indiana	67	6, 403, 87	66	5, 708, 97	1	694, 90	60	5, 564, 53	60	5, 564. 53		0,000		
Cincinnati, Ohio	174	50, 551, 95	116	39, 931. 44	58	10, 620, 51	110	38, 628. 88	110	38, 628. 88		•••••		
Wheeling, West Virginia	432	43, 419, 05	142	16, 711. 88	290	26, 707. 17	137	16, 056, 20	137	16, 056, 20				
Pittsburg, Pennsylvania	678	129, 025, 97	168	39, 482, 76	510	89, 543, 21	205	50, 752, 58	160	34, 508, 69	45	16, 243,		
Omaha, Nebraska	29	5, 887. 17	1	5, 887, 17	310	05,040.21	32	6, 720, 32	32	6, 720. 32	•	10, 244.0		
			1	1882			11		1	88 8				
Total	1, 438	389, 644. 39	1, 226	249, 210. 10	212	140, 434. 29	1, 312	361, 047. 68	1, 163	243, 317. 19	149	117, 730.4		
New Orleans, Louisians	177	28, 306, 53	172	28, 075. 83	5	230. 70	132	21, 199. 21	132	21, 199. 21				
Natchez, Mississippi	5	254. 33	5	254. 33			4	239. 87	4	239. 87		· ••••••		
Vicksburg, Mississippi	3	44. 67	. 3	44. 67		. 	28	3, 583. 33	28	3, 583. 33				
Memphis, Tennessee	65	10, 426, 37	65	10, 426. 37	 	·	73	11, 503. 30	73	11, 503, 30				
Nashville, Tennessee	15	2, 527, 93	15	2, 527. 93			18	3, 876, 32	18	3, 876. 32		•••••		
Chattanooga, Tennessee	13	1, 567. 44	13	1, 567. 44	• • • • • • • • • • • • • • • • • • • •		17	1, 936, 11	17	1, 936, 11		· • • • • • • • • • • • • • • • • • • •		
Louisville, Kentucky	60	17, 938. 08	60	17, 938. 08		. 	57	18, 118. 07	57	18, 118. 07				
Saint Louis, Missouri	308	178, 598. 35	163	57, 933. 02	145	120, 665. 33	295	178, 276, 29	160	62, 349. 88	135	115, 936.4		
Kansas city, Missouri			ļ	ļ. 			1	112, 57	1	112.57	}			
Burlington, Iowa	43	4, 305. 05	43	4, 305. 05			45	4, 815, 52	45	4, 815. 52	j. 	 		
	24	3, 369. 81	24	3, 369. 81			27	4, 719, 56	27	4, 719. 56				
Dubuque, Iowa		6, 436, 36	45	6, 409. 11	1	27. 25	35	3, 027, 59	35	3, 027. 59				
•	46	0, 500.00		1	10	1, 021. 45	59	7, 861, 19	46	6, 328. 49	13	1,532.7		
Dubuque, Iowa	46 58	7, 473. 66	48	6, 452. 21	10		1							
Dubuque, Iowa	58	1 '	48 23	6, 452. 21 2, 518. 37			25	2, 771. 63	∬ 25	2, 771. 63	j			
Dubuque, Iowa Lacrosse, Wisconsin Minnesota	58	7, 473. 66	H	1 .	6	2, 245. 67	25 32	2, 771. 63 3, 940. 42	25 31	2, 771. 63 3, 669. 04	1	271.3		
Dubuque, Iowa	58 23	7, 473. 66 2, 518. 37	23	2, 518. 37		2, 245. 67			11		1	271.3		
Dubuque, IowaLacrosse, Wisconsin	58 23 36	7, 473, 66 2, 518, 37 5, 744, 58	23 30	2, 518. 37 3, 498. 91		2, 245. 67	32	3, 940, 42	31	3, 669. 04	- 1	27L3		
Dubuque, Iowa	58 23 36 t8	7, 473. 66 2, 518. 37 5, 744. 58 5, 842. 88	23 30 58	2, 518. 37 3, 498. 91 5, 842. 88		2, 245. 67	32 64	3, 940, 42 6, 051, 50	31 64	3, 669. 04 6, 051. 50	- 1	271.3		
Dubuque, Iowa. Lacrosse, Wisconsin Minnesota. Galena, Illinois. Cairo, Illinois. Evansville, Indiana. Cincinnati, Ohio	58 23 36 t8 1.4	7, 473, 66 2, 518, 37 5, 744, 58 5, 842, 88 37, 486, 94	23 30 58 114	2, 518. 37 3, 498. 91 5, 842. 88 37, 486. 94		2, 245. 67 16, 243. 89	32 64 110	3, 940, 42 6, 051, 50 35, 013, 12	31 64 110	3, 669. 04 6, 051. 50 35, 013. 12	- 1	271.3		

a Compiled from reports furnished by commissioner of navigation.

b Comprising the ports of Saint Vincent and Saint Paul.

TABLE 25.—COMPARATIVE STATISTICS—Continued.

NUMBER AND TONNAGE OF ALL STEAMERS AND BARGES REGISTERED IN THE CUSTOMS DISTRICTS OF THE MISSISSIPPI VALLEY FOR THE YEARS 1880 TO 1889, INCLUSIVE—Continued.

	1884							1885						
CUSTOMS DISTRICTS.	. 10	OTAL.	STE	STRAMERS.		BARGES.		TOTAL.		STEAMERS.		BARGES.		
	Number.	Tonnage.	Number.	Tonnage.	Number.	Tonnage.	Number.	Tonnage.	Number.	Tonnage.	Number.	Tonnage.		
Total	1, 302	356, 263. 61	1, 157	241, 007. 35	145	115, 256. 26	1, 289	346, 054. 19	1, 149	231, 675. 84	140	114, 378. 3		
New Orleans, Louisiana	138	20, 834. 85	138	20, 834. 85			127	20, 147. 83	127	20, 147. 83				
Natchez, Mississippi	4	452. 25	4	452. 25]		3	303. 23	3	303. 23				
Vicksburg, Mississippi	30	3, 298. 74	30	3, 298. 74			32	3, 637. 74	32	3, 637. 74				
Memphis, Tennessee	73	14, 977. 04	73	14, 977. 04			72	13, 807. 31	72	13, 807. 31		J		
Nashville, Tennesses	22	4, 020. 17	22	4, 020. 17			16	3, 562. 51	16	3, 562. 51	<u> </u>			
Chattanooga, Tennessee	16	2, 771. 84	16	2, 771. 84	l		18	3, 052, 59	18	3, 052, 59				
Paducah, Kentucky	9	651. 62	9	651. 62			18	1, 412, 84	18	1, 412. 84	'i			
Louisville, Kentucky	53	18, 175, 15	53	18, 175, 15			56	15, 902, 25	56	15, 902. 25				
Saint Louis, Missouri	268	168, 824. 60	136	55; 345, 60	132	113, 479, 00	269	165; 924. 62	141	53, 052, 15	128	112, 872, 4		
Kansas city, Missouri		1, 129. 20	11	1, 129. 20	102	110, 110.00	11	1, 125. 20	11	1, 125. 20		112,012.4		
Saint Joseph, Missouri	"	1, 129. 20	II	1, 129. 20			3	297. 06	3	297. 06		•••••		
• .	40	4 004 00	40	4 004 00			ł	,		1	 			
Burlington, Iowa	46	4, 984. 63	46	4, 984. 63			45	4, 828, 52	45	4, 828. 52				
Dubuque, Iowa	22	4, 368. 02	22	4, 368. 02			23	4, 299. 70	23	4, 299. 70	··········			
Omaha, Nebraska	19	3, 787. 46	19	3, 787. 46			21	4, 013. 28	21	4, 013. 28	¦·····	• • • • • • • • • • • • • • • • • • • •		
Minnesota	60	8, 271. 10	48	6, 765. 22	12	1, 505. 88	56	7, 416. 37	44	5, 910. 49	12	1, 505. 8		
Lacrosse, Wisconsin	43	3, 626. 31	43	3, 626. 31			40	3, 666. 65	40	3, 666. 65	¦			
Galena, Illinois	23	2, 319. 23	23	2, 319. 23			24	2, 527. 21	24	2, 527. 21	ļ. .			
Cairo, Illinois	25	4, 269. 91	24	3, 998. 53	1	271.38	18	3, 508. 36	18	3, 508. 36	<u> </u>			
Evansville, Indiana	67	8, 710. 09	67	8, 710. 09			60	8, 727. 89	60	8, 727. 89				
Cincinnati, Ohio	101	31, 610. 42	101	31, 610, 42	1		110	32, 746, 76	110	32, 746, 76	II. <i>.</i>			
Wheeling, West Virginia.	109	14, 583, 83	109	14, 583. 83			112	13, 479. 07	112	13, 479, 07				
Pittsburg, Pennsylvania	163	34, 597. 15	163	34, 597. 15			155	31, 667. 20	155	31, 667. 20				
		<u> </u>	1	886	"				1	887	·			
Total	1, 247	334, 810. 06	1, 105	221, 088. 76	142	142 113, 721. 30		327, 313. 55	1, 144 217, 941. 56		148 109, 371	109, 371. 96		
							1,292					=======================================		
New Orleans, Louisiana	125	20, 395. 66	125	20, 395. 66			129	19, 808. 80	129	19, 808. 80				
Natchez, Mississippi	3	303. 23	3	303. 23			3	303. 23	3	303, 23				
Vicksburg, Mississippi	30	2, 555. 51	30	2, 555. 51			30	2, 723. 39	30	2, 723. 39				
Memphis, Tennessee	70	13, 774, 98	70	13, 774. 98	I		82	14, 901. 67	82	14, 901, 67	l			
Nashville, Tennessee	19	4, 088, 45	19	4, 088. 45	1	İ	17	3, 469. 49	17	3, 469, 49				
Chattanooga Tennessee	15	2, 665, 32	15	2, 665, 32			17	3, 546. 92	17	3, 546, 92				
Paducah, Kentucky	23	3, 496, 24	23	3, 496, 24			29	4, 270. 03	29	4, 270, 03				
Louisville, Kentucky	57	14, 997, 73	57	14, 997. 73			55	12, 176, 58	55	12, 176. 58				
Saint Louis, Missouri	252	161, 478. 54	129	49, 738. 90	123	111, 739. 64	250	153, 829. 16	132	47, 153, 20	118	106, 675, 9		
•	l .	1	!1	1	123	25. 81	13	1 '	132	1, 164, 66	110	100, 073.		
Kansas city, Missouri	14	1, 185. 35	13	1, 159. 54	1	20. 61	:1	1, 164. 66	i i	1		• • • • • • • • • • • • • • • • • • • •		
Saint Joseph, Missouri	4	687, 55	4	687. 55		• • • • • • • • • • • • • • • • • • • •	6	746. 57	6	746. 57				
	22	3, 636, 56	22	3, 636. 56			19	2, 934. 96	19	2, 934. 96				
OHIAHA, Nebiasaa	49	5, 250. 75	45	4, 908. 84	4	341. 91	52	5, 182. 35	43	4, 656. 02	9	526. 3		
Burlington, Iowa	1	4, 564. 89	24	4, 564. 89			22	4, 370. 74	22	4, 370. 74				
Omaha, Nebraska Burlington, Iowa Dubuque, Iowa	24				13	1, 578. 94	65	8, 272. 87	49	6, 504. 93	16	1, 767. 9		
Burlington, Iowa Dubuque, Iowa	24	8, 010. 15	46	6, 431. 21	11							:		
Burlington, Iowa	24		46 41	6, 431. 21 3, 383. 25			48	3, 932. 78	45	3, 655. 02	3	277.7		
Burlington, Iowa Dubuque, Iowa Minnesota Lacrosse, Wisconsin	24 59 41	8, 010. 15	11	1	1	35. 00	48 28	3, 932. 78 3, 170. 85	45 26	3, 655. 02 3, 046. 85	3 2	i		
Burlington, Iowa Dubuque, Iowa Minnesota	24 59 41 24	8, 010. 15 3, 383. 25	41	3, 383. 25	1	35. 00	1	1	1		li .	i		
Burlington, Iowa Dubuque, Iowa Minnesota Lacrosse, Wisconsin Galena, Illinois	24 59 41 24 55	8, 010. 15 3, 383. 25 2, 577. 81	41 23	3, 383. 25 2, 542. 81	1	35. 00	28	3, 170. 85	26	3, 046. 85	li .	277. 70 124. 00		
Burlington, Iowa Dubuque, Iowa Minnesota Lacrosse, Wisconsin Galena, Illinois	24 59 41 24 55 106	8, 010. 15 3, 383. 25 2, 577. 81 8, 198. 62 31, 594. 03	41 23 55 106	3, 383. 25 2, 542. 81 8, 198. 62 31, 594. 03	1	35.00	28 53	3, 170. 85 7, 309. 70 30, 535. 73	26 53	3, 046. 85 7, 309. 70	li .	i		
Burlington, Iowa Dubuque, Iowa Minnesota Lacrosse, Wisconsin Galena, Illinois Evansville, Indiana Cincinnati, Ohio	24 59 41 24 55	8, 010. 15 3, 383. 25 2, 577. 81 8, 198. 62	41 23 55	3, 383. 25 2, 542. 81 8, 198. 62	1	35.00	28 53 107	3, 170. 85 7, 309. 70	28 53 107	3, 046. 85 7, 309. 70 30, 535. 73	li .	i		

TABLE 25.—COMPARATIVE STATISTICS—Continued.

NUMBER AND TONNAGE OF ALL STEAMERS AND BARGES REGISTERED IN THE CUSTOMS DISTRICTS OF THE MISSISSIPPI VALLEY FOR THE YEARS 1880 TO 1889, INCLUSIVE—Continued.

			1	1888					1	1880		
CUSTOMS DISTRICTS.	TO	TAL.	STE	AMERS.	BA	RGES.	то	TAL.	STEA	Mers.	BAI	RGES.
	Number.	Tonnage.	Number.	Tonnage.	Number.	Tonnage.	Number.	Tonnage.	Number.	Tonnage.	Number.	Tonnage.
Total	1, 253	304, 990. 93	1, 122	214, 035. 55	131	90, 955. 38	1, 246	299, 335. 54	1, 114	209, 826. 07	132	89, 509. 47
New Orleans, Louisiana	127	19, 447. 03	127	19, 447. 03			126	19, 248. 58	126	19, 248, 58		
Natchez, Mississippi	4	592. 35	4	592. 35			4	592. 35	4	592.35		· • • • • • • • • • • • • • • • • • • •
Vicksburg, Mississippi	30	2, 932, 28	30	2, 932. 28			30	2, 875. 90	30	2, 875, 99		· · · · · · · · · · · · · · · · · · ·
Memphis, Tennessee	66	11. 167. 28	66	11, 167. 28			71	12, 113. 76	71	12, 113. 76		
Chattanooga, Tennessee	20	4, 048. 30	20	4, 048. 30			22	3, 966, 09	22	3, 966. 09		
Paducah, Kentucky	42	6, 555, 71	42	6, 555. 71	ˈ <u> </u>		53	8, 781. 24	53	8, 781. 24		• • • • • • • • • • • • • • • • • • •
Louisville, Kentucky	45	11, 024, 75	45	11, 024, 75			52	11, 937. 92	52	11, 937, 92		
Saint Louis, Missouri	219	134, 103, 07	123	46, 210. 35	96	87, 892. 72	208	129, 249, 39	115	42, 827. 04	93	86, 122, 33
Kansas city, Missouri	16	1, 381. 63	13	1, 185. 00	3	196. 63	16	1, 781. 35	16	1, 781. 35		
Saint Joseph, Missouri	6	368. 72	6	368.72	<u> </u>		6	340. 53	6	340. 53		
Omaha, Nebraska	19	2, 687. 46	19	2, 687. 46	ļ		13	1, 329, 55	13	1, 329. 55		
Burlington, Iowa	51	4, 987. 01	42	4, 506. 75	9	480. 26	56	5, 718, 95	43	5, 059. 39	13	659. 5
Dubuque, Iowa	28	5, 100. 10	27	5, 050. 44	1	49.66	29	6, 408. 82	28	6, 355. 26	1	53.50
Minnesota	61	7, 758. 76	47	5, 986. 17	14	1, 772. 59	61	6, 691. 30	46	5, 213. 56	15	1. 477. 74
Lacrosse, Wisconsin	50	4, 191. 55	45	3, 768, 56	5	422. 99	54	4, 639. 76	47	3, 884. 03	7	755. 73
Galena, Illinois	29	3, 243. 23	26	3, 102. 70	3	140.53	30	3, 270. 13	27	3, 129. 60	3	140.5
Evansville, Indiana	60	8, 166. 47	60	8, 166, 47			54	6, 950. 76	54	6, 950, 76	 	
Cincinnati, Ohio	116	32, 751. 31	116	32, 751. 31			115	31, 406. 87	115	31, 406. 87		
Wheeling, West Virginia	109	11, 611, 52	109	11, 611, 52	: 		94	9, 768. 97	94	9, 768. 97		
Pittaburg, Pennsylvania	155	32, 872. 40	155	32, 872. 40	J		152	32, 263, 23	152	32, 263. 23		-

RECAPITULATION FOR THE 10 YEARS.

	TN	OTAL.	STE.	AMERS.	ВА	RGES.
YEARS.	Number.	Tonnage.	Number.	Tonnage.	Number.	Tonnage.
1880	2, 295	473, 792. 03	1, 225	256, 915. 99	1, 070	216, 876, 04
1881	1,424	393, 946, 89	1, 191	246, 997. 37	233	146, 949. 5
1882	1,438	389, 644. 39	1, 226	249, 210. 10	212	140, 434. 2
1883	1,312	361, 047, 68	1, 163	243, 317. 19	149	117, 730. 4
1884	1,302	356, 263. 61	1, 157	241, 007. 35	145	115, 256, 2
1885	1, 289	346, 054. 19	1, 149	231, 675. 84	140	114, 378. 3
1886	1, 247	334, 810. 06	1, 105	221, 088. 76	142	113, 721. 3
1887	1, 292	327, 313. 55	1, 144	217, 941. 56	148	109, 371. 9
1888	1, 253	304, 990. 93	i, 122	214, 035. 55	131	90, 955. 3
1889	1, 246	299, 335, 54	1, 114	209, 826, 07	132	89, 509, 4

TABLE 26.—NUMBER, AGGREGATE TONNAGE, AND AVERAGE VESSEL TONNAGE OF ALL STEAMERS REGISTERED AT THE CUSTOMS DISTRICTS OF THE MISSISSIPPI VALLEY IN THE YEARS 1880 TO 1889, INCLUSIVE. (a)

		1880			1881			1882			1888		1	1884	
CUSTOMS DISTRICTS.	Num- ber.	Tonnage.	Aver- age.	Num- ber.	Tonnage.	Aver- age.	Num- ber.	Tonnage.	Aver- age.	Num- ber.	Tonnage.	Aver- age.	Num- ber.	Tonnage.	Aver-
New Orleans, Louisiana	167	29, 413	176	171	30, 732	180	172	28, 076	163	132	21, 199	161	138	20, 835	15
Natchez, Mississippi	3	192	64	. 			5	254	51	4	240	60	4	452	11:
Vicksburg, Mississippi	27	2, 963	110				. 3	45	15	28	3, 583	128	30	3, 299	110
Memphis, Tennessee	66	10, 780	163	65	11, 303	174	65	10, 426	160	73	11, 503	158	73	14,977	200
Nashville, Tennessee	26	3, 621	139	29	4, 599	159	15	2, 528	169	18	3,876	215	22	4, 020	18
Chattanooga, Tennessee							13	1, 567	121	17	1,936	114	16	2, 772	17
Louisville, Kentucky	53	17, 750	335	58	17, 539	302	60	17, 938	299	57	18, 118	318	53	18, 175	34
Paducah, Kentucky	. 			l	ļ	l				l			9	652	7
Saint Louis, Missouri	162	59, 699	369	153	54, 393	356	163	57, 933	355	160	62, 350	390	136	55, 346	40
Kansas city, Missouri				: :						1	113	113	11	1, 129	10
Saint Joseph, Missouri	. .			! ;••••••	·					!				 	
Burlington, Iowa	31	2, 414	78	42	4, 624	110	43	4, 305	100	45	4, 816	107	46	4, 985	10
Dubuque, Iowa	29	3, 697	127	31	3, 757	121	24	3, 370	140	27	4, 720	175	22	4, 368	19
Lacrosse, Wisconsin	39	6, 201	159	44	6, 599	150	45	6, 409	142	35	3,028	87	43	3, 626	8
M innesota (b)	48	5, 873	122	45	6,004	133	48	6, 452	134	46	6, 328	138	48	6, 765	14
Galena, Illinois	25	2, 267	91	23	2, 120	92	23	2, 518	109	25	2,772	111	23	2, 319	10
Cairo, Illinois	28	4, 323	154	31	3, 849	124	30	3, 499	117	31	3, 669	118	24	3,999	16
Evansville, Indiana	66	5, 709	87	60	5, 565	93	58	5, 843	101	64	6, 052	95	67	8,710	13
Cincinnati, Ohio	116	39, 931	344	110	38, 629	351	114	37, 487	329	110	35, 013	318	101	31, 610	31
Wheeling, West Virginia	142	16, 712	118	137	16, 056	117	144	17, 330	120	110	14, 705	134	109	14, 584	13
Pittsburg, Pennsylvania	168	39, 483	235	160	34, 509	216	169	36, 467	216	157	34, 803	222	163	34, 597	21
Omaha, Nebraska	29	5, 887	203	32	6, 720	210	32	6, 763	211	23	4, 494	195	19	3, 787	19
CUSTOMS DISTRICTS.	Num- ber.	Tonnage.	Aver-	Num- ber.	Tonnage.	Aver-	Num- ber.	Tonnage.	Aver-	Num- ber.	Tonnage.	Aver-	Num- ber.	Tonnage.	Aver-
		!				i					!				
New Orleans, Louisiana	127	20, 148	159	125	20, 396	163	129	19, 809	154	127	19, 447	153	126	19, 249	15
Natchez, Mississippi	3	303	101	; 3	303	101	3	303	101	4	592	148	4	592	14
Vicksburg, Mississippi	32	3, 638	114	30	2, 556	85	30	2, 723	91	30	2, 932	98	30	2, 876	9
Memphis, Tennessee	72	13, 807	192	70	13, 775	197	82	14, 902	182	66	11, 167	169	71	12, 114	17
Nashville, Tennessee	16	3, 563	223	19	4, 088	215	17	3, 469	204	١					
Chattanooga, Tennessee	18	3, 053	170	15	2, 665	178	17	3, 547	209	20	4, 048	202	22	3, 966	18
Louisville, Kentucky	56	15, 902	284	57	14, 998	263	55	12, 177	221	45	11, 025	245	52	11,938	23
		1	1				29	4, 270	147	42	6, 556	156	53	8, 781	16
	18	1, 413	79	23	3, 496	152				100	46, 210	376	115	42, 827	37
Paducah, Kentucky	i		79 376	129	3, 496 49, 739	152 386	132	47, 153	357	123		0.0			11
Paducah, Kentucky Saint Louis, Missouri Kansas city, Missouri	i	53, 052		.1	1	1		47, 153 1, 165	357 90	123	1, 185	91	16	1, 781	• •
Paducah, Kentucky Saint Louis, Missouri	141 11	53, 052	376	129	49, 739	386	132	1, 165 747	1		'		16 6	341	
Paducah, Kentucky Saint Louis, Missouri Kansas city, Missouri Saint Joseph, Missouri	141 11 3	53, 052 1, 125	376 102	129 13	49, 739 1, 160	386 89	132 13	1, 165	90	13	1, 185	91	1		5 11
Paducah, Kentucky Saint Louis, Missouri Kansas city, Missouri	141 11 3	53, 052 1, 125 297	376 102 99	129 13 4	49, 739 1, 160 688	386 89 172	132 13 6	1, 165 747	90 125	13 6 42 27	1, 185 369	91 62	6 43 28	341	5 11 22
Paducah, Kentucky Saint Louis, Missouri Kansas city, Missouri Saint Joseph, Missouri Burlington, Iowa	141 11 3 45	53, 052 1, 125 297 4, 829 4, 300 3, 667	376 102 99 107	129 13 4 45 24 41	49, 739 1, 160 688 4, 909 4, 565 3, 383	386 89 172 109 190 83	132 13 6 43 22 45	1, 165 747 4, 656 4, 371 3, 655	90 125 108 199 81	13 6 42 27 45	1, 185 369 4, 507 5, 050 3, 769	91 62 107 187 84	6 43 28 47	341 5, 059 6, 355 3, 884	5 11 22 8
Paducah, Kentucky Saint Louis, Missouri Kansas city, Missouri Saint Joseph, Missouri Burlington, Iowa Dubuque, Iowa Lacresse, Wisconsin Minnesota	141 11 3 45 23 40	53, 052 1, 125 297 4, 829 4, 300 3, 667 5, 910	376 102 99 107 187 92 134	129 13 4 45 24 41 46	49, 739 1, 160 688 4, 909 4, 565 3, 383 6, 431	386 89 172 109 190 83	132 13 6 43 22 45 49	1, 165 747 4, 656 4, 371 3, 655 6, 505	90 125 108 199 81 133	13 6 42 27 45 47	1, 185 369 4, 507 5, 050 3, 769 5, 986	91 62 107 187 84 127	6 43 28 47 46	341 5, 059 6, 355 3, 884 5, 214	5 11 22 8 11
Paducah, Kentucky Saint Louis, Missouri Kansas city, Missouri Saint Joseph, Missouri Burlington, Iowa Dubuque, Iowa Lacrosse, Wisconsin Minnesota Galena, Illinois	141 11 3 45 23 40 44 24	53, 052 1, 125 297 4, 829 4, 300 3, 667 5, 910 2, 527	376 102 99 107 187 92 134 105	129 13 4 45 24 41	49, 739 1, 160 688 4, 909 4, 565 3, 383	386 89 172 109 190 83	132 13 6 43 22 45	1, 165 747 4, 656 4, 371 3, 655	90 125 108 199 81	13 6 42 27 45	1, 185 369 4, 507 5, 050 3, 769	91 62 107 187 84	6 43 28 47	341 5, 059 6, 355 3, 884	5 11 22 8 11
Paducah, Kentucky Saint Louis, Missouri Kansas city, Missouri Saint Joseph, Missouri Burlington, Iowa Dubuque, Iowa Lacresse, Wisconsin Minnesota Galena, Illinois Cairo, Illinois	141 11 3 45 23 40	53, 052 1, 125 297 4, 829 4, 300 3, 667 5, 910 2, 527 3, 508	376 102 99 107 187 92 134 105 195	129 13 4 45 24 41 46	49, 739 1, 160 688 4, 909 4, 565 3, 383 6, 431 2, 543	386 89 172 109 190 83 140 111	132 13 6 43 22 45 49 26	1, 165 747 4, 656 4, 371 3, 655 6, 505 3, 047	90 125 108 199 81 133 117	13 6 42 27 45 47 26	1, 185 369 4, 507 5, 050 3, 769 5, 986 3, 103	91 62 107 187 84 127	6 43 28 47 46 27	341 5, 059 6, 355 3, 884 5, 214 3, 130	11 22 8 11 11
Paducah, Kentucky Saint Louis, Missouri Kansas city, Missouri Saint Joseph, Missouri Burlington, Iowa Dubuque, Iowa Lacresse, Wisconsin Minnesota Galena, Illinois Cairo, Illinois	141 11 3 45 23 40 44 24	53, 052 1, 125 297 4, 829 4, 300 3, 667 5, 910 2, 527 3, 508 8, 728	376 102 99 107 187 92 134 105 195	129 13 4 45 24 41 46 23	49, 739 1, 160 688 4, 909 4, 565 3, 383 6, 431	386 89 172 109 190 83 140 111	132 13 6 43 22 45 49 26	1, 165 747 4, 656 4, 371 3, 655 6, 505 3, 047	90 125 108 199 81 133 117	13 6 42 27 45 47 26	1, 185 369 4, 507 5, 050 3, 769 5, 986 3, 103	91 62 107 187 84 127 119	6 43 28 47 46 27	341 5, 059 6, 355 3, 884 5, 214 3, 130	5 11 22 8 11 11
Paducah, Kentucky Saint Louis, Missouri Kansas city, Missouri Saint Joseph, Missouri Burlington, Iowa Dubuque, Iowa Lacrosse, Wisconsin Minnesota Galena, Illinois	141 11 3 45 23 40 44 24 18	53, 052 1, 125 297 4, 829 4, 300 3, 667 5, 910 2, 527 3, 508	376 102 99 107 187 92 134 105 195	129 13 4 45 24 41 46 23	49, 739 1, 160 688 4, 909 4, 565 3, 383 6, 431 2, 543	386 89 172 109 190 83 140 111	132 13 6 43 22 45 49 26	1, 165 747 4, 656 4, 371 3, 655 6, 505 3, 047 7, 310 30, 536	90 125 108 199 81 133 117	13 6 42 27 45 47 26	1, 185 369 4, 507 5, 050 3, 769 5, 986 3, 103 8, 166 32, 751	91 62 107 187 84 127 119	6 43 28 47 46 27 54	341 5, 059 6, 355 3, 884 5, 214 3, 130 6, 951 31, 407	11 22 8 11 11 12 27
Paducah, Kentucky Saint Louis, Missouri Kansas city, Missouri Saint Joseph, Missouri Burlington, Iowa Dubuque, Iowa Lacresse, Wisconsin Minnesota Galena, Illinois Cairo, Illinois	141 11 3 45 23 40 44 24 18 60	53, 052 1, 125 297 4, 829 4, 300 3, 667 5, 910 2, 527 3, 508 8, 728 32, 747 13, 479	376 102 99 107 187 92 134 105 195 145 298	129 13 4 45 24 41 46 23	49, 739 1, 160 688 4, 909 4, 565 3, 383 6, 431 2, 543	386 89 172 109 190 83 140 111	132 13 6 43 22 45 49 26	1, 165 747 4, 656 4, 371 3, 655 6, 505 3, 047 7, 310 30, 536 11, 951	90 125 108 199 81 133 117 138 285	13 6 42 27 45 47 26 60 116	1, 185 369 4, 507 5, 050 3, 769 5, 986 3, 103 8, 166 32, 751 11, 612	91 62 107 187 84 127 119	6 43 28 47 46 27 54 115	341 5, 059 6, 355 3, 884 5, 214 3, 130 6, 951 31, 407 9, 769	5 11 22 8 11 11 12 27
Paducah, Kentucky Saint Louis, Missouri Kansas city, Missouri Saint Joseph, Missouri Burlington, Iowa Dubuque, Iowa Lacresse, Wisconsin Minnesota Galena, Illinois Cairo, Illinois Evansville, Indiana Cincinnati, Ohio	141 11 3 45 23 40 44 24 18 60	53, 052 1, 125 297 4, 829 4, 300 3, 667 5, 910 2, 527 3, 508 8, 728 32, 747	376 102 99 107 187 92 134 105 195 145 298 120 204	129 13 4 45 24 41 46 23 55 106	49, 739 1, 160 688 4, 909 4, 565 3, 383 6, 431 2, 543 8, 199 31, 594	386 89 172 109 190 83 140 111 149 298 104 204	132 13 6 43 22 45 49 26	1, 165 747 4, 656 4, 371 3, 655 6, 505 3, 047 7, 310 30, 536	90 125 108 199 81 133 117 138 285 110 207	13 6 42 27 45 47 26	1, 185 369 4, 507 5, 050 3, 769 5, 986 3, 103 8, 166 32, 751	91 62 107 187 84 127 119	6 43 28 47 46 27 54	341 5, 059 6, 355 3, 884 5, 214 3, 130 6, 951 31, 407 9, 769 32, 263	5 11 22 8 11 11 12 27 10 21

 $[\]boldsymbol{a}$ Compiled from information furnished by commissioner of navigation.

b Comprising the ports of Saint Vincent and Saint Paul.

TABLE 27.—AVERAGE ANNUAL NUMBER OF STEAMERS AND AVERAGE ANNUAL TONNAGE REGISTERED AT THE CUSTOMS DISTRICTS OF THE MISSISSIPPI VALLEY IN THE YEARS 1880 TO 1889, INCLUSIVE, TOGETHER WITH THE INDICATED YEARS OF HIGHEST, LOWEST, AND MEAN REGISTRATION. (a)

CUSTOMS DISTRICTS.	Annual average number	ABOV	HEST E AVER- GE.	BELOV	WEST WAVER- GE.		EST TO	Fluctua-	Annual average		EST ABOVE ERAGE.		ERAGE.		CEST TO ERAGE.	Fluc
	of vessels regis- tered.	Year.	Num- ber.	Year.	Num- ber.	Year.	Num- ber.	tion.	registered tonnage.	Year.	Number of tons.	Year.	Number of tons.	Year.	Number of tons.	tion.
New Orleans, Louisiana	141. 40	1882	172	1886	125	1884	138	47	22, 930, 40	1881	30, 732	1889	19, 249	1883	21, 199	11.48
Natchez, Mississippi	3. 67	1882	5	1880	3	1883	4	2	359: 11	1888	592	1880	192	1885	303	44
Vicksburg, Mississippi	26. 67	1885	32	1882	3	1880	27	29	2, 735, 00	1885	3, 638	1886	2, 556	1887	2, 723	1.00
Memphis, Tennessee	70. 30	1887	82	1881	65	1886	70	17	12, 475, 40	1884	14, 977	1882	10, 426	1889	12, 114	4.53
Nashville, Tennessee	20. 25	1881	29	1882	15	1886	19	14	3, 720, 50	1881	4, 599	1882	2, 528	1880	3. 6 21	2,00
Chattanooga, Tennessee	17. 25	1889	22	1882	13	1883	17	9	2, 944, 25	1888	4, 048	1882	1, 567	1885	3, 053	2.4
Louisville, Kentucky	54.60	1882	60	1888	45	1887	55	15	15, 556. 00	1884	18, 175	1888	11, 025	1885	15, 902	7.1
Paducah, Kentucky	29.00	1889	53	1884	9	1887	29	44	4, 194. 67	1889	8, 781	1884	652	1887	4, 270	R 15
Saint Louis, Missouri	141. 40	1882	163	1889	115	1885	141	48	52, 870, 20	1883	62, 350	1889	42, 827	1885	53, 052	19 5
Kansas city, Missouri	11. 14	1889	16	1883	1	1884	11	15	1, 094. 00	1889	1, 781	1883	113	1885	1, 125	1.0
Saint Joseph, Missouri	5.00	1887	6	1885	3	1887	6	3	488. 40	1887	747	1885	297	1888	369	44
Burlington, Iowa	42.50	1884	46	1880	31	1881	42	15	4, 510. 40	1889	5, 059	1880	2, 414	1888	4, 507	2.6
Dubuque, Iowa	25. 70	1881	· 31	1884	22	1883	27	9	4, 455. 30	1889	6, 355	1882	3, 370	1887	4, 371	2.9
Lacrosse, Wisconsin	42. 40	1889	47	1883	35	1884	43	12	4, 422. 10	1881	6, 599	1883	3,028	1889	3, 884	3, 5
Minnesota (b)	46.70	1887	49	1885	44	1888	47	5	6, 146. 80	1884	6, 765	1889	5, 214	1881	6,004	1.5
Galena, Illinois	24. 50	1889	27	1881	23	1885	24	4	2, 634. 60	1889	3, 130	1881	2, 120	1886	2. 543	1.0
Cairo, Illinois	27.00	1881	31	1885	18	1880	28	13	3, 807. 83	1880	4, 323	1882	3, 499	1881	3, 849	8
Evansville, Indiana	59. 70	1884	67	1887	53	1881	60	14	7, 123. 30	1885	8, 728	1881	5, 565	1889	6, 951	3, 16
Cincinnati, Ohio	110.50	1880	116	1884	101	1881	110	15	34, 170, 50	1880	39, 931	1887	30, 536	1883	35, 013	9. 26
Wheeling, West Virginia	116. 70	1882	144	1889	94	1885	112	50	13, 667. 30	1882	17, 330	1889	9, 769	1885	13, 479	7.56
Pittsburg, Pennsylvania	159. 10	1882	169	1889	152	1881	160	17	34, 086, 30	1880	39, 483	1886	31, 490	1881	34, 509	7 96
Omaha, Nebraska	22. 90	1881	32	1889	13	1883 ⁱ	23	19	4, 225, 30	1882	6, 763	1889	1, 330	1885	4.013	5. 43

 $[\]boldsymbol{a}$ Compiled from information furnished by commissioner of navigation.

b Comprising ports of Saint Vincent and Saint Paul.

TABLE 28.—COMPARATIVE STATISTICS.

NUMBER AND TONNAGE OF ALL STEAMERS AND BARGES BUILT IN THE CUSTOMS DISTRICTS OF THE MISSISSIPPI VALLEY DURING THE YEARS 1880 TO 1889, INCLUSIVE, TOGETHER WITH DATA SHOWING THE NUMBER AND TONNAGE OF SIDE-WHEEL STEAMERS, STERN-WHEEL STEAMERS, AND PROPELLERS BUILT DURING EACH YEAR AT EACH PORT. (a)

1880.

			(CLASS.					METH	OD OF STEAM	MERS' P	ROPULSION.		
CUSTOMS DISTRICTS.	•	Total.	St	eamers.] 1	Barges.		Total.	Sid	le-wheel.	Ster	rn-wheel.	Pı	opeller.
	Num- ber.	Tonnage.	Num- ber.	Tonnage.	Num- ber.	Tonnage.	Num- ber.	Tonnage.	Num- ber.	Tonnage.	Num- ber.	Tonnage.	Num- ber.	Tonnage.
Total	135	32, 791. 31	117	23, 930. 92	18	8, 860. 39	117	23, 930. 92	30	11, 449. 60	75	11, 791. 60	12	689. 72
New Orleans, Louisiana	7	448. 09	7	448. 09			7	448. 09			2	86. 51	5	361. 58
Memphis, Tennessee	5	434.50	5	434. 50	1		5	434. 50			5	434.50	١	
Nashville, Tennessee	4	390. 36	4	390. 36			4	390. 36			. 4	390. 36		
Louisville, Kentucky	21	8, 953. 93	17	5, 302. 11	4	3, 651. 82	17	5, 302. 11	4	2, 186. 02	12	3, 069. 69	1	46. 40
Saint Louis, Missouri	22	3, 755. 27	18	2, 023. 52	4	1, 731. 75	18	2, 023. 52	10	1, 647. 68	اع إ	375. 64		
Dubuque, Iowa	1	456. 96	1	456. 96			1	456. 96			1 '	456.96		
Burlington, Iowa	3	155. 61	່ 3 ່	155. 61			3	155. 61			2	146.60	1	9. 01
Omaha, Nebraska	1	78.08	1	78.08			1	78. 08	- 		1	78.08		
Lacrosse, Wisconsin	4	277.70	4	277.70			4	277.70			4	277. 70		
Minnesota (b)	7	652. 59	6	581.03	1	71. 56	6	581. 03			5	558. 11	1	22. 92
Cairo, Illinois	2	1, 513. 14	2	1, 513. 14	ļ		2	1, 513. 14	1	1, 477. 27	1	35. 87	ļ,	
Galena, Illinois	1	16. 34	1	16. 34			1	16. 34	1	16.34				
Evansville, Indiana	8	355, 96	8	355. 96			8	355. 96	;		. 6	201.04	2	154. 92
Cincinnati, Ohio	24	7, 883. 6 7	18	6, 484. 08	6	1, 399. 59	18	6, 484. 08	6	3, 902. 59	12	2, 581. 49		
Wheeling, West Virginia	12	1, 083. 70	12	1, 083. 70	ˈ _]		12	1, 083. 70	3	334. 92	7	653, 89	2	94. 89
Pittsburg, Pennsylvania	13	6, 335. 41	10	4, 329. 74	3	2, 005. 67	10	4, 329. 74	5	1, 884. 58	5	2, 445. 16		

Total	182	81, 188. 88	129	24, 587. 06	53	56, 601. 82	129	24, 587. 06	24	6, 925. 70	82	15, 435. 70	23	2, 225. 66
New Orleans, Louisiana	6	1, 252. 54	6	1, 252. 54			6	1, 252. 54	3	1, 096. 01			3	156. 53
Memphis, Tennessee	8	945. 15	8	945. 15			8	945. 15			7	903. 18	1	41. 97
Nashville, Tennessee	5	363, 75	5	363. 75			5	363.75]		5	3 6 3. 75		
Louisville, Kentucky	28	15, 398. 79	21	7, 464. 93	7	7, 933. 86	21	7, 464. 93	10	3, 315. 14	8	3, 418. 87	3	730. 92
Saint Louis, Missouri	42	34, 019. 09	. 13	2, 253. 95	29	31, 765. 14	13	2, 253. 95	6	1, 315. 47	7	938. 48	·	l
Dubuque, Iowa	2	365. 74	. 2	365. 74			2	365.74			2	365.74	ļ	!
Burlington, Iowa	2	219. 20	2	219. 20			2	219. 20		. 	1	178. 82	1	40.38
Omaha, Nebraska	2	87. 16	2	87. 16			2	87. 16			2	87. 16		
Minnesota	4	418. 35	4	418.35			4	418. 35	1	237. 09	2	150. 71	1	30. 55
Lacrosse, Wisconsin	3	100. 11	3	100. 11	.		3	100. 11	2	83. 20	1	16. 91		,
Cairo, Illinois	3	1, 222. 60	2	64. 10	1	1, 158. 50	2	64. 10		l. 	1	48. 26	1	15.84
Galena, Illinois	1	10. 30	1	10. 30			1	10. 30		l. 	ļ		1	10. 30
Evansville, Indiana	4	346. 46	4	346. 46			4	346. 46	!		2	227.47	2	118.99
Cincinnati, Ohio	29	15, 625. 75	17	4, 209. 93	12	11, 415. 82	17	4, 209. 93	1	555, 50	10	2, 863. 21	6	791. 22
Wheeling, West Virginia	17	4, 075. 01	15	2, 057. 19	2	2, 017. 82	15	2, 057. 19			11	1, 768. 23	4	288.96
Pittsburg, Pennsylvania	26	6, 738. 88	24	4. 428. 20	2	2, 310. 68	24	4, 428. 20	1	323. 29	23	4, 104. 91		· · · · · · · · · · · · · · · · · · ·

1882.

Total	152	35, 816. 95	134	24, 671. 90	18	11, 145. 05	134	24, 671. 90	12	6, 576. 18	100	17, 123. 97	22	971.75
New Orleans, Louisiana	7	337. 35	7	337. 35			7	337. 35	1	23. 61	1	149. 91	5 .	163. 83
Memphis, Tennessee	6	249. 85	6	249. 85	;		6	249. 85	1	8. 99	3	199. 52	2	41.34
Nashville, Tennessee	2	83. 13	2	83. 13			2	83. 13	1	24. 39	1	58. 74	٠	
Chattanooga, Tennessee	1	153.90	1 1	153. 90	·		1	153.90	·		1	153. 90		
Louisville, Kentucky	24	15, 176, 07	18	8, 429. 81	6	6, 746. 26	18	8, 429. 81	5	6, 001. 47	13	2, 428. 34	!	
Saint Louis, Missouri	20	3, 281. 81	11	1, 439. 50	9	1, 842. 31	11	1, 439. 50	ļ		9	1, 264. 92	2	174. 58
Dubuque, Iowa	1	191. 55	1	191.55	i		1	191. 55	JI		1	191.55		
Burlington, Iowa	2	253. 62	2	253. 62	1		2	253. 62	<u> </u>		1	234. 16	1	19. 46
Omaha, Nebraska	1	33.06	1	33.06			1	33.06	<u> </u>				1	33. 06
Lacrosse, Wisconsin	4	320. 97	4	320. 97			4	320.97			4	320.97		
Minnesota	4	489. 43	3	373. 28	1	116. 15	3	373. 28	·		3	373. 28		
Cairo, Illinois	5	531. 36	5	531.36	اI		5	531. 36]!		1	168. 87	4	362. 49
Galena, Illinois	4	468. 64	4	468. 64	"		4	468. 64			4	468. 64		
Evansville, Indiana	6	336. 92	6	336. 92	ŀ		6	336.92	1 1	9. 59	3	254. 19	2	73. 14
Cincinnati, Ohio	20	5, 504. 33	18	3, 064. 00	2	2, 440. 33	18	3, 064. 00	3	508. 13	13	2, 488, 66	2	67. 21
Wheeling, West Virginia	18	1, 981. 16	18	1, 981. 16	'i		18	1, 981. 16	J		18	1, 981, 16		
Pittsburg, Pennsylvania	27	6, 423. 80	27	6, 423. 80	ľl		27	6, 423. 80			24	6, 387. 16	3	36. 64

TABLE 28.—COMPARATIVE STATISTICS—Continued.

NUMBER AND TONNAGE OF ALL STEAMERS AND BARGES BUILT IN THE CUSTOMS DISTRICTS OF THE MISSISSIPPI VALLEY DURING THE YEARS 1890 TO 1889, INCLUSIVE, ETC.—Continued.

1883.

			•	CLASS.					METE	OD OF STEA	MERS' F	PROPULSION.		
CUSTOMS DISTRICTS.		Total.	St	eamers.	I	Barges.		Total.	Sid	le-wheel.	Ste	rn-wheel.	Pı	opeller.
	Num- ber.	Tonnage.	Num- ber.	Tonnage.	Num- ber.	Tonnage.	Num- ber.	Tonnage.	Num- ber.	Tonnage.	Num- ber.	Tonnage.	Num. ber.	Tonnage.
Total	125	26, 442. 92	116	20, 879. 07	9	5, 563. 85	116	20, 879. 07	18	6, 388. 03	76	12, 890. 00	22	1, 601. 04
New Orleans, Louisiana	8	482. 22	8	482. 22			8	482. 22	1	155. 58	4	238. 89	3	87.75
Memphis, Tennessee	10	582. 04	10	582. 04			10	582. 04	3	283. 39	1	27. 97	6	270.6
Nashville, Tennessee	3	224. 10	3	224. 10			3	224. 10	2	154.83	1	69. 27	ˈl!	
Chattanooga, Tennessee	3	448. 29	3	448. 29			3	448. 29			3	448. 29	1	• • • • • • • • • • • • • • • • • • • •
Louisville, Kentucky	22 .	11, 629, 74	18	7, 946, 57	4	3, 683. 17	18	7, 946. 57	2	1, 959. 23	11	5, 215. 87	5	771.4
Saint Louis, Missouri	7	1, 538. 57	6	1, 343. 76	1	194. 81	6	1, 343, 76	2	914. 61	2	313, 81	1 2	115. 3
Burlington, Iowa	4	289. 74	4	289.74	·		4	289. 74	,		3	246, 50	. 1	43. 2
Dubuque, Iowa	2	231.06	2	231.06			2	231.06		ا ا	i	••••	2	231.0
Omaha, Nebraska	3	221.68	3	221.68			3	221. 68			3	221.68	·	
Minnesota	8	880. 23	5	36 8, 98	3	511. 25	5	368. 98	1	35. 87	2	277. 22	2	55, 8
Cairo, Illinois	3	242.74	3	242.74	1		3	242.74			3	242, 74		
Galena, Illinois	1	148. 48	1	148. 48			1	148. 48			1	148. 48	!!	
Evansville, Indiana	8	372. 21	8	372. 21	,		8	372. 21	2	74.08	6	298. 13	·	
Cincinnati, Ohio	15	4, 026, 27	14	2, 851. 65	1	1, 174. 62	14	2, 851. 65	2	251. 13	11	2, 574. 91	' 1	25. 6
Wheeling, West Virginia	22	2, 085. 30	22	2, 085. 30	·	·	22	2, 085. 30	1	196. 21	21	1, 889. 09	j'l	
Pittsburg, Pennsylvania	6	3, 040. 25	6	3, 040. 25		·	6	3, 040. 25	2	2, 363. 10	4	677. 15		

1884.

Total	93	16, 664. 32	91	16, 219. 44	2	444. 88	91	16, 219. 44	12	3, 786. 24	70	12, 075. 66	9	357. 54
New Orleans, Louisiana	6	504. 19	6	504. 19			6	504. 19			1	218. 01	5	286. 18
Vicksburg, Mississippi	1	110. 34	1	110.34			1	110. 34	ļ. .	·	1	110. 34		• • • • • • • • • • • • • • • • • • • •
Memphis, Tennessee	4	522, 44	4	522. 44			4	522. 44		· 	4	522. 44	!	• • • • • • • • • • • • • • • • • • • •
Nashville, Tennessee	2	384. 93	2	384. 93			2	384. 93			2	384. 93 i		
Chattanooga, Tennessee	1	32, 72	1	32, 72			1	32. 72			1	32. 72		
Louisville, Kentucky	15	6, 105, 72	15	6, 105. 72			15	6, 105. 72	3	2, 677. 31	12	3, 428. 41		•••••
Saint Louis, Missouri	7	910.88	5	466, 00	2	444. 88	5	466, 00	2	221.04	2	237. 11	1	7.85
Burlington, Iowa	1	96. 89	1	96.89			1	96. 89			1	96, 89		
Dubuque, Iowa	1	26, 92	1	26, 92			1	26. 92			· 		1	26.02
Omaha, Nebraska	3	73. 17	3	7 3. 17			3	7 3. 17			3	73. 17		••••
Minnesota	2	102.64	2	102. 64			2	102. 64	1	70, 56	1	32. 08		
Lacrosse, Wisconsin	4	236, 73	4	236. 73			4	236. 73	1	61. 10	1	139. 04	2	36, 59
Cairo, Illinois	1	31.74	. 1	31.74			1	31.74			1	31.74	:	
Galena, Illinois	2	253. 26	2	253, 26			2	253. 26	1	198. 31	1	54.95		
Evansville, Indiana	6	538. 57	6	538. 57	!		6	538. 57	1	43.70	5	494.87		
Cincinnati, Ohio	6	1, 009. 35	6	1,009.35			6	1, 009. 35	1	140. 46	5	868. 89		
Wheeling, West Virginia	13	1, 332. 13	13	1, 332. 13			13	1, 332. 13	2	373.76	11	958. 37		
Pittsburg, Pennsylvania	18	4, 391. 70	18	4, 391. 70	!		18	4, 391. 70		·	18	4, 391. 70	i	

1885.

Total	81	11, 220. 37	81	11, 220. 37	·	81	11, 220. 37	6	4, 342. 18	65	6, 137. 95	10	740. 24
New Orleans, Louisiana	8	367. 73	8	367, 73	· · · · · · · · · · · · · · · · · · ·	8	367. 73			5	257. 82	3	109.91
Vicksburg, Mississippi	2 '	29. 18	2	29. 18	 	2	29. 18		ا!	1	15. 73	1	12.45
Memphis, Tennessee	5	380.66	5	380.66	1	5	380, 66			5	380. 66		
Chattanooga, Tennessee	1	31.30	1	31.30		1	31. 30			1	31. 30		! ,••••••••••
Louisville, Kentucky	15	4, 273. 00	15	4, 273. 00		15	4, 273. 00	2	2, 200. 32	13	2, 072. 68		
Saint Louis, Miscouri	7	776. 06	7	776.06		7	776.06	1	580. 56	5	148, 05	1	47.45
Kansas city, Missouri	1	20.45	1	20. 45		1	20. 45	 .		1	20. 45		•••••
Omaha, Nebraska	2	60.55	2	60.55	!	2	60. 55			2	60. 55		•••••
Burlington, Iowa	3	195. 84	3	195, 84	·····	3	195. 84			3	195. 84	ļ	
Dubuque, Iowa	3	195.98	3	195. 98	P	3	195. 98	1	50.00	2	145. 98		• • • • • • • • • • • • • • • • • • • •
Minnesota	1	103. 54	1	103. 54		1	103. 54			1	103. 54		
Cairo, Illinois	1 1	48.01	1	48. 01		1	48. 01			1	48. 01		•••••
Evansville, Indiana	5	281.94	5	281. 94	1	5	281. 94			4	217. 98	1	67.98
Cincinnati, Ohio	10	2, 375. 99	10	2, 375. 99	 	10	2, 375, 99	2	1,511.30	6	451.98	2	412.71
Wheeling, West Virginia	13	1, 237. 02	13	1, 237. 02		13	1, 237. 02			12	1, 225. 20	1	11.82
Pittsburg, Pennsylvania	4	843. 12	4	843. 12	J	4	843. 12			3	762.18	1	80.94

TABLE 28.—COMPARATIVE STATISTICS—Continued.

NUMBER AND TONNAGE OF ALL STEAMERS AND BARGES BUILT IN THE CUSTOMS DISTRICTS OF THE MISSISSIPPI VALLEY DURING THE YEARS 1880 TO 1889, INCLUSIVE, ETC.—Continued.

1886.

				CLA88.					метн	OD OF STEAD	MERS' P	ROPULSION.		
CUSTOMS DISTRICTS.		Total.	St	camers.	1	Barges.		Total.	Sic	le-wheel.	Ste	rn-wheel.	P	ropeller.
	Num- ber.	Tonnage.	Num- ber.	Tonnage.	Num- ber.	Tonnage.	Num- ber.	Tonnage.	Num- ber.	Tonnage.	Num- ber.	Tonnage.	Num- ber-	Tonnage.
Total	76	10, 594. 93	70	9, 699. 70	6	895. 23	70	9, 699. 70	8	1, 333. 42	58	8. 226. 71	4	139. 57
New Orleans, Louisiana	2	95, 87	2	95, 87			2	95, 87	! -		1	36. 80	1	59. 07
Vicksburg, Mississippi	2	63. 80	2	63. 80			2	63. 80			. 2	63, 80		
Memphis, Tennessee	8	818. 27	8	818. 27			8	818. 27	3	271.78	5	546, 49		
Nashville, Tennessee	2	131. 67	}	131. 67			2	131. 67			2	131. 67	': 	
Chattanooga, Tennessee	2	505. 91	. 2	505. 91	i		2	505, 91			2	505. 91		
Paducah, Kentucky	2	305, 20	2	305. 20			2	305. 20			2	305. 20	1	
Louisville, Kentucky	11	2, 269. 87	11	2, 269. 87	<u> </u>		11	2, 269. 87	1	714. 87	10	1, 555. 00	<u> </u>	
Saint Louis, Missouri	2	86. 68	2	86, 68	li 		2	86. 68	1	14.04	1	72. 64		
Kansas city, Missouri	1	25. 81	1	25. 81		' .	1	25. 81	·		1	25. 81		
Omaha, Nebraska	2	50. 52	2	50. 52			2	50. 52			2	50. 52		
Burlington, Iowa	5	303. 56	. 2	144. 07	3	159.49	2	144.07			2	144.07		
Dubuque, Iowa	2	260. 35	2	26 0, 35	 i		2	260. 35	ļ	·	2	260, 35	· '	·
Minnesota	4	309, 06	3	235. 20	1	73.86	3	235. 20	j	••••	2	212. 55	1	22. 65
Lacrosse, Wisconsin	4	142. 57	4	142. 57		'- -	4	142.57	1	24. 47	2	90. 88	1	27. 22
Galena, Illinois	1	35.00			1	35.00	ļ		·····				ļ	• • • • • • • • • • • • • • • • • • • •
Evansville, Indiana	1	235. 20	1	235, 20			.1	235. 2 0	j	• • • • • • • • • • • • • • • • • • • •	1	235, 20	 	••••••
Cincinnati, Ohio	5	1, 344. 92	4	718.04	1	626.88	4	718.04	jl	. 	4	718.04		• • • • • • • • • • • • • • • • • • • •
Wheeling, West Virginia	8	724. 25	8	724. 25	[8	724, 25	1	39, 93	6	653, 69	1	30. 63
Pittsburg, Pennsylvania	12	2, 886, 42	12	2, 886. 42			12	2, 886. 42	<u>i</u> 1	268, 33	11	2, 618, 09		
						1887.								
Total	79	10, 900. 93	69	10, 167. 73	10	733. 20	69	10, 167. 73	6	2, 170. 99	55	7, 872. 06	8	124. 68
New Orleans, Louisiana	4	89. 37	4	89. 37			4	89. 37			2	52. 38	2	36, 99
Vicksburg, Mississippi	1	22. 27	1	22. 27	<u> </u>	İ	1	22. 27	il		1	22. 27	ľ	
Memphis, Tennessee	9	610. 78	9	610.78	li	!	9	610. 78			7	592, 02	2	18.76
Chattanooga, Tennessee	1	565. 34	1	565. 34			1	565.34]		1	565. 34	 	
Paducah. Kentucky	1	235. 20	1	235. 20			1	235. 20		ļ	1	235, 20	' <u>'</u>	
Louisville, Kentucky	15	4, 422. 82	14	4, 240. 80	1 1	182.02	14	4, 240. 80	2	1, 950. 73	12	2, 290. 07]	
Saint Louis, Missouri	4!	70. 08	4	70. 08			4	70.08	1	23. 16	2	28. 52	1	18.40
Kansas city, Missouri	1	21. 86	1	21.86		!	1	21.86			' 1]	21.86		
Burlington, Iowa	5	184.42			5	184. 42					!			
Dubuque, Iowa	1	89.00		!	_! 1	89.00	ļ <u>.</u>			¦		· • • • • • • • • • • • • • • • • • • •	[
Minnesota	8	487. 53	7	413. 42	1	74.11	7	413, 42			6	373. 17	1	40. 25
Lacrosse, Wisconsin	4	213. 93	2	10. 28	2	203.65	2	10. 28					2	10.28
Evansville, Indiana	5	634. 81	5	634. 81]		5	634. 81	[i		5	634. 81	j	· · · · · · · · · · · · · · · · · · ·
Cincinnati, Ohio	4	501.95	4	501.95	 		4	501.95	1	65. 73	3	436. 22	 	· · · · · · · · · · · · · · · · · · ·
Wheeling, West Virginia	6 '	503. 86	6	503. 86			6	503.86	1	52.93	5	450, 93	ļ	
Pittsburg, Pennsylvania	10	2, 247. 71	10	2, 247. 71			10	2, 247, 71	1	78. 44	9	2, 169. 27	1	· · · · · · · · · · · · · · · · · · ·
						1888.								
Total	84	11, 859. 15	74	11, 371. 56	10	487. 59	74	11, 371. 56	. 9	4. 312. 73	59	6, 830. 91	6	227.92
New Orleans, Louisiana	6	391. 91	6	391. 91			6	391. 91		l	5	265. 33	1	126. 58
Memphis, Tennessee	8	1, 371, 10	8	1, 371, 10		I <u></u>	8	1, 371. 10	. 2	1. 196. 67	: 6	174. 43		
Nashville, Tennessee	1	102.48	1	102. 48	·	·	1	102.48			1	102, 48		! !
Chattanooga, Tennessee	5	810. 53	5	810. 53			5	810. 53		: •••••••••••	5	810. 53		
Paducah, Kentucky	3	493. 75	3	493.75		<u></u>	3	493.75		1	. 3	493.75		
Louisville, Kentucky	13	4, 532. 43	12	4, 351. 42	1	181.01	12	4, 351. 42	¦ 4	2, 956. 39	8 ;	1, 395. 03	ļ	
Saint Louis, Missouri	3	35. 13			, 3	35. 13					[]			·
Kansas city, Missouri	1	80. 35	1	80. 35	١	••••••	1	80. 35	· 		1	80. 35		
Saint Joseph, Missouri	1	19. 36	1	19. 36	,		1	19. 36	 	ļ	1	19.36		• • • • • • • • • • • • • • • • • • • •
Dubuque, Iowa	2	237. 66	2	237.66	ļ		2	237. 66	ľ		2	237. 66		
Minnesota	7 '	334. 57	6	311. 92	1	. 22. 65	6	311. 92	٠	l	5	301. 95	1	9. 97
Lacrosse, Wisconsin	3	235. 67	1	121. 92	2	113. 75	1	121. 92			1	121.92	ļ	
Galena, Illinois	2	63. 16	1	46, 63	1	16.53	1	46, 63	1	46. 63			·····	
Evansville, Indiana	5	185. 57	5	185. 57]	·	5	185. 57	1	20. 49	2	136, 49	2	28. 59
OL-JULAN ONLA	4	314. 62	4	314, 62	1	١	4	314. 62	1	92. 55	3	222.07		
		!		1					_	1.00	l			
Cincinnati, Ohio	12	1, 064. 57 1, 586. 29	. 12	1, 064. 57 1, 467. 77	2	118. 52	12 6	1, 064. 57 1, 467. 77	ļ		10	1, 001. 79 1, 467. 77	2	62. 78

TABLE 28.—COMPARATIVE STATISTICS—Continued.

NUMBER AND TONNAGE OF ALL STEAMERS AND BARGES BUILT IN THE CUSTOMS DISTRICTS OF THE MISSISSIPPI VALLEY DURING

THE YEARS 1890 TO 1899, INCLUSIVE, ETC.—Continued.

1889.

				CLASS.					METH	OD OF STEAM	iers' P	ROPULSION.		
CUSTOMS DISTRICTS.		Total.	St	eamers.	I	Barges.		Total.	Sid	e-wheel.	Ster	rn-wheel.	Pı	ropeller.
	Num- ber.	Tonnage.	Num- ber.	Tonnage.	Num- ber.	Tonnage.	Num- ber.	Tonnage.	Num- ber.	Tonnage.	Num- ber.	Tonnage.	Num- ber.	Tonnage.
Total	83	12, 202. 36	74	11, 556. 73	. 9	645, 63	74	11, 556. 73	2	980. 54	56	9, 289. 50	16	1, 286, 66
New Orleans, Louisiana	3	1, 079, 75	3	1, 079. 75			3	1, 079. 75	1	957. 31			2	122.44
Memphis, Tennessee	7	1, 101. 98	7	1, 101. 98			7	1, 101. 98	1	23. 23	6	1, 078. 75	·	
Chattanooga, Tennessee	3	134. 88	3	134.88			3	134. 88	:		2	112.61	1	22.27
Paducah, Kentucky	7	980. 65	6	730. 01	1	250. 64	6	730. 01	j		5	686. 26	1	43, 75
Louisville, Kentucky	14	4, 392. 15	14	4, 392. 15			14	4, 392. 15			14	4, 392. 15	ļ!	
Saint Louis, Missouri	1	43.05	1	43.05			1	43.05			1	43. 05		
Kansas city, Missouri	1	20. 53	1	20. 53			1	20. 53			1	20. 53	ļ	
Saint Joseph, Missouri	1	36.00	1	36, 00			1	36.00	اا		1	36.00	il	
Burlington, Iowa	4	157. 11			4	157. 11							ļ	
Dubuque, Iowa	5	724. 08	4	670. 52	1	53. 56	4	670.52			2	644. 60	2	25. 92
Omaha, Nebraska	1	21.71	1	21.71			1	21.71	!		1	21.71	1	
Minnesota	5	432. 28	3	330.06	2	102. 22	3	330, 06			2	317. 86	1	12. 20
Lacrosse, Wisconsin	5	353. 29	4	271. 19	1	82. 10	4	271.19	[4	271. 19		
Galena, Illinois	2	175.62	2	175. 62			2	175. 62	· '		1	142.76	1	32.86
Evansville, Indiana	2	92.40	2	92.40			2	92.40			1	68, 08	1	24. 32
Cincinnati, Ohio	8	1, 082. 90	8	1, 082. 90			8	1, 082. 90			1	79.97	7	1, 002.93
Wheeling, West Virginia	6	493. 42	6	493.42			6	493. 42			6	493. 42	[;;	
Pittsburg, Pennsylvania	8	880. 56	8	880. 56		` 	8	880. 56			8	880. 56	<u> </u>	

RECAPITULATION FOR THE 10 YEARS.

Total for 10 years1.09	249,	382. 12	955	164, 304. 48	135	85, 377. 64	955	164, 304. 48	127	48, 265. 61		107, 674, 06	132	8, 364, 81
1880		791. 31	117	23, 930. 92	18	8, 860. 39	117	23, 930. 92	30	11, 449. 60	75	11, 791. 60	12	689.72
1881	81,	188.88	129	24, 587. 06	53	56, 601. 82	129	24, 587, 06	24	6, 925. 70	82	15, 435, 70	23	2, 225. 66
1882 15	2 35, 8	316. 95	134	24, 671. 90	18	11, 145. 05	134	24, 671. 90	12	6, 576. 18	100	17, 123. 97	22	971.75
1883 12	5 26,	142. 92	116	20, 879. 07	9	5, 563, 85	116	20, 879. 07	18	6, 386. 03	76	12, 890. 00	22	1, 601.04
1884 9	3 16,	64.32	91	16, 219. 44	2	444.88	91	16, 219, 44	12	3, 786. 24	70	12, 075. 66	. 9	357.54
1885 8	l 11,:	220. 37	81	11, 220. 37			81	11, 220. 37	6	4, 342. 18	65	6, 137. 95	10	740.24
1886 7	3 10.	594. 93	70	9, 699. 70	6	895. 23	70	9, 699. 70	8	1, 333. 42	58	8, 226. 71	4	139.57
1887 7	10,	900. 93	69	10, 167. 73	10	733. 20	69	10, 167. 73	6	2, 170. 99	55	7, 872. 06	. 8	124.68
1888 8	11,	359. 15	74	11, 371. 56	10	487. 59	74	11, 371. 56	9	4, 312. 73	59	6, 830. 91	6	227.92
1889 8	3 12,	202. 36	74	11, 556. 73	9	645. 63	74	11, 556. 73	2	980. 54	56	9, 289. 50	16	1, 286.69
	1		1		7			l .		1	lŧ	1	li l	

TABLE 29.—CONGRESSIONAL APPROPRIATIONS.

ITEMIZED STATEMENT OF THE SUMS APPROPRIATED BY CONGRESS FOR THE SURVEYS, IMPROVEMENT, AND MAINTENANCE OF THE WATER WAYS AND HARBORS OF THE MISSISSIPPI VALLEY, BY PERIODS, FROM THE EARLIEST DATE OF APPROPRIATION TO 1890, INCLUSIVE. (a)

LOCALITIES.	Date of earliest appropriation.	Appropriations up to and including 1879.	Appropriations from 1880 to 1889, inclusive.	Appropriations by act of Congress, September, 1890.	Total appropriations up to date.
Grand total	1819	\$28, 200, 707	\$39, 290, 556	\$9, 336, 200	\$ 76, 827, 4 63
Total for Upper Mississippi system	1832	12, 792, 679	13, 234, 510	3, 246, 000	29, 273, 189
Total for Ohio system	1827	9, 396, 351	10, 011, 921	2, 331, 000	21, 739, 272
Total for Lower Mississippi system	1	4, 604, 677	15, 916, 125	3, 734, 200	24, 255, 002
Total for Red River of the North	1876	65, 000	128, 000	25, 000	218, 000
Miscellaneous	1819	1, 342, 000			1, 342, 000
UPPER MISSISSIPPI SYSTEM.					
Upper Mississippi:					
At sources.	1879	25, 000	634, 500	80, 000	739, 500
Above Falls of Saint Anthony	1875	120, 000	45, 000	18,000	183, 000
At Falls of Saint Anthony	1870	480,000	60, 000	· · · · · · · · · · · · · · · · · · ·	540, 000
Meckers island	1873	25, 000			25, 000
Saint Paul to Des Moines	1844	533, 600	1, 972, 500	500, 000	8, 006, 100
Des Moines rapids	1852	4, 268, 500	386, 250	22, 000	4, 676, 750
Rock Island rapids	1866	1, 150, 650	16,000		1, 166, 650
Des Moines to mouth of Illinois	1852	150, 000	1, 131, 000	165, 000	1, 446, 000
Illinois to Ohio river	1836	1, 554, 600	2, 705, 000	582, 000	4, 841, 600
Snagging	i	115, 000	260, 000		375, 000
Total for Upper Mississippi	1836	8, 422, 350	7, 210, 250	1, 367, 000	16, 999, 600
Tributaries:					
Galena	1878	42, 000	24, 000	b100, 000	166, 000
Fox and Wisconsin (c)	1839	2, 028, 714	771, 260	100, 000	2, 899, 974
Minnesota	1867	117, 500	10,000	***************************************	127, 500
Hennepin canal	1882		45, 000	500, 000	545, 000
Cuivre	1880	1, 500	12, 000		12, 000 1, 500
Total for tributaries	1020	2 100 514	862, 260	700, 000	2 751 074
Total for Upper Mississippi	1839	2. 189, 714 8, 422, 350	7, 210, 250	1, 367, 000	3, 751, 974 16, 999, 600
Total for Upper Mississippi and tributaries	1836	10, 612, 064	8, 072, 510	2, 067, 000	20, 751, 574
Saint Croix	1878	18,000	74, 500	8, 000	100, 500
Chippewa	1876	34. 465	128, 750	10, 000	173, 215
••		·			
Illinois	1852	639, 150	947, 500	2,000	1, 588, 650
Missouri:	1054	100.000	977 400	200 000	885 WA
Upper	1	100,000	375, 000	300, 000	775, 000
Lower	1878	451, 500	2, 175, 000	800, 000	3, 426, 500
Whole river	1832	492, 500	1, 000, 000 145, 000	• • • • • • • • • • • • • • • • • • • •	1, 492, 500
Snagging	1836 1878	200, 000 80, 000	115, 000		345, 000 195, 000
Total for Missouri	1832	1, 324, 000	3, 810, 000	1, 100, 000	6, 234, 000
Tributaries :	L -1.175.F				
Osage	1871	140,000	65, 000	55,000	260, 000
Gasconade	1880		42, 500	4,000	46, 500
Yellowstone	1879	25, 000	93, 750	-,	118, 750
Total for tributaries.	1871	165, 000	201, 250	59,000	425, 250
Total for the Missouri	1822	1, 324, 000	3, 810, 000	1, 100, 000	6, 234, 000
Total for Missouri and tributaries	1832	1, 489, 000	4, 011, 250	1, 159, 000	6, 659, 250

 $[\]alpha$ Compiled from information furnished by chief of engineers, United States army. b Conditional.

c The appropriations were made " for the improvement of the water communication between Lake Michigan and the Mississippi river".

TABLE 29.—CONGRESSIONAL APPROPRIATIONS—Continued.

LOCALITIES.	Date of earliest appropria- tion.	Appropriations up to and including 1879.	Appropriations from 1880 to 1889, inclusive.	Appropriations by act of Congress, September, 1890,	Total appropriations up to date.
OHIO SYSTEM.					
Ohio:	1835	\$2, 731, 500	\$2, 450, 250	\$300,000	45 Hm ===
General improvements	1852	1, 305, 000	736, 563	85,000	\$5, 490, 750 2, 126, 565
Together with purchase of Louisville and Portland canal	1	1, 250, 000			1, 250, 000
Total for Ohio.	. 1835	5, 286, 500	3, 195, 813	385,000	a, 867, 313
	1000	7,204,010	3) 125) 014		=
Tributaries:	1878	3,000	11,500	2,000	16 500
GuyandotteLicking		3,000	3,000	3,000	16, 500 6, 000
Beaver River dam	1890		3,000	250,000	
Tradewater.	1881	.,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,	16, 500	200,000	25.5000
Tranewater					10, 500
Total for tributaries		3,000	31,000	255, 000	289, 000
Total for Ohio	1835	5, 286, 500	3, 195, 813	385, 000	8, 867, 313
Total for Ohio and tributaries	. 1835	5, 289, 500	3, 226, 813	640,000	9, 156, 313
Allegheny	. 1879	10,000	222,500	20,000	252, 500
Monongahela	1	187, 000	406, 733	162, 000	धः सः
. Cheat	. 1890			13,000	13, 00
Buckhannon	. 1884		4,500	1,000	3.500
Total for Monongahela and tributaries	. 1872	187,000	411, 233	176, 000	774.233
Muskingum	. 1879	30,000	389,500	30,000	449, 5 4
Little Kanawha	1876	1			
		43, 300	127,875	40,000	=======================================
Great Kanawha	. 1873	992,000	1, 337, 500	300,000	2, 629, 509
Harbor at mouth of	. 1884	,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,	15, 000		15, 919
Elk	1875	10,500	16,000	2, 500	29,000
Gauley	1888		3, 000	3,000	6. AU
Total for Great Kanawha and tributaries	1873	1, 002, 500	1, 371, 500	305, 500	2, 679, 500
Big Sandy		24, 000	241,500	31,000	296, 5:0
Tug fork				2, 500	2,500
Levisa fork	. 1890			2, 500	2.500
Total for Big Sandy and tributaries		24,000	241, 500	36,000	301, 300
Kentucky	1879	100,000	1, 067, 000	180.000	1, 347, 00
Green (purchase of locks and dams)	1888	· · · · · · · · · · · · · · · · · · ·	195 000		195
Rough creek.			135, 000	25, 000	135, 004 25, 000
· ·	i	· —- · —— .	 :-		
Total for Green and tributaries	1888		135, 000	25, 000	16), (4)
Wabash	1829	321, 500	319, 000	65, 590	706 00
White, of Indiana	1879	25, 000	82, 000		107 (00
Total for Wabash and tributaries	1829	346, 500	401, 000	63, 500	813,440
Cumberland:		:			
Above Nashville	. 1876	151, 000	470,000	250, 000	871.000
Below Nashville	. 1832	340,000	80,000	40, 000	46 0, 000
South fork of	1882		12,000		12.000
Total for Cumberland	1832	491,000	562, 000	290, 000	1. 343. 000
Tributaries:					
Obey			11.500		11. 530
Caney fork	- 1889		22, 500	2, 500	25.000
Total for tributaries	. 1880		34, 000	2 500	36, 500
Total for Cumberland	1832	491, 000	562, 000	290, 000	1, 343.00

RIVERS OF THE MISSISSIPPI VALLEY.

TABLE 29.—CONGRESSIONAL APPROPRIATIONS—Continued.

LOCALITIES.	Date of earliest appropria- tion.	Appropriations up to and including 1879.	Appropriations from 1880 to 1889, inclusive.	Appropriations by act of Congress, September, 1890.	Total appropriations up to date.
OHIO SYSTEM—Continued.					
Below Chattanooga	1827	\$1, 548, 051	\$1,662,500	\$475,000	\$3, 685, 55
Above Chattanooga	1852	241, 500	49, 500	30,000	321,000
Total for Tennessee	1827	1, 789, 551	1, 712, 000	505, 000	4, 006, 55
Tulbussadas					
Tributaries: Duck	1880		19 000		12 00
Clinch	1880		13, 000 31, 000	4, 000	13, 000 35, 000
Hiwassee	1876	23, 000	·	1, 500	34, 500
	1	1 1	10,000	i ' 1	·
French Broad, of Tennessee	1876	60,000	51, 000	10, 600	121,000
Little Tennessee	1882		5, 000		5, 000
Total for tributaries	1876	83, 000	110,000	15, 500	208, 500
Total for Tennessee	1827	1, 789, 551	1,712,000	505, 000	4, 006, 551
Total for Tennesses and tributaries	1827	1, 872, 551	1, 822, 000	520, 500	4, 215, 051
Total for Ohio system	1827	9, 396, 351	10, 011, 921	2, 331, 000	21, 739, 272
LOWER MISSISSIPPI SYSTEM.					
ower Mississippi (exclusive of passes) (a):					
From Ohio river to head of passes	1878	527, 000	13, 438, 000	b3, 200, 000	17, 165, 000
Snagging	1836	225, 000	536, 750		761, 750
Water gauges	1876	15, 000	36, 700		51, 700
Total for Lower Mississippi	1836	767, 000	14, 011, 450	3, 200, 000	17, 978, 450
Bayous:					
Bartholomew	1881		28, 000	5,000	33, 000
Black	1881		25, 000	-,	25, 000
Bœuf	1881	!	26, 000	5,000	31,000
Courtableau	1880		29, 000	2, 200	31, 200
D'Arbonne	1884	. 	9, 000	2,000	11,000
Lafourche	1852	22, 500	60,000	50,000	132, 500
Loggy	1884		10, 000		10,000
Pierre	1884	<u> </u>	13, 600		13, 600
Atchafalaya (c)	1888	l	· • • • • • • • • • • • • • • • • • • •		••••••
Vidal	1880		1,000	1,000	2, 000
Teche	1829	18, 200	77, 500	5, 000	100, 700
Terrebonne	1880		38, 800		38, 800
Steels	1884		7, 500	2, 500	10,000
Cypress	1872	94, 000	23, 000	10,000	127, 000
Total for bayous	1829	134, 700	348, 400	82, 700	565, 800
- n					=======================================
Tributaries:				-	
Forked Deer, south fork of	1882		17, 000	2, 500	19, 500
Saint Francis and Cache creek	1880		41, 000	14, 500	55, 500
Big Black	1884		10, 0 00	5,000	15, 900
Big Hatchie	1880		27, 000	5,000	32, 000
L'Anguille	1878	15, 000	2, 000		17, 000
Kaskaskia	1890			6, 000	6, 000
Little, of Missouri	1888		5, 000	3,000	8, 000
Total for tributaries	1878	15, 000	102,000	36,000	153,000
Early appropriations for whole river, 1827 to 1879	1827	1, 295, 712		;······	1, 295, 712
			100 000 /	1 00 000	150 000
Total for tributaries	1878	15, 000	102,000	36, 000	153,000
Total for tributaries Total for bayous Total for Lower Mississippi	1878 1829	15, 000 134, 700	348, 400	36, 000 82, 700	153, 000 565, 800

a For the appropriations for the improvement at the mouth of the Mississippi, consisting of surveys, channel work, and jetties, amounting to \$7,597,500, see table of appropriations for Gulf of Mexico.

b In the second session of Congress, in 1891, an additional \$1,000,000 was appropriated.

c Amount included in general appropriation for the Lower Mississippi.

TABLE 29.—CONGRESSIONAL APPROPRIATIONS—Continued.

LOCALITIES.	Date of earliest appropria- tion.	Appropriations up to and including 1879.	Appropriations from 1880 to 1889, inclusive.	Appropriations by act of Congress, September, 1890.	Total appropriations up to date.
LOWER MISSISSIPPI SYSTEM—Continued.		!			
White, of Arkansas	1874	\$183,500	\$153,000	\$ 30, 00 0	\$366, 500
Tributaries:					
Current	1872	5,000	2,000		7, 000
Black, of Missouri	1880		68, 000	12,000	80,000
Little Red	1886		8, 400		8.400
m . 1 0 11	1000				
Total for tributaries	1872	5,000	78, 400	12,000	95, 400
Total for White	1874	183, 500	153, 000	30, 000	366, 500
Total for White and tributaries	1872	188, 500	231, 400	42, 000	461, 900
Arkansas:			·		
Above Fort Smith	1876	40,000	113,000		153, 000
At Fort Smith	1876	20,000	18,000		38,000
At Pine Bluff	1880	1 20,000	131, 000	•	131,000
From Little Rock to mouth.	1884		19,000		19,000
General improvement.	1832	512, 500	10,000	180,000	692, 500
Snagging	1878	35,000	175, 875	20,000	230, 875
		'	110,010		
Total for Arkansas	1832	607, 500	456, 875	200, 000	1, 264, 375
Tributaries:					
Fourche la Fave	1879	10,000	16, 000	500	26, 500
Petit Jean	1886		6, 000		6,000
Total for tributaries	1879	10,000	22, 000	500	32, 500
Total for Arkansas	1832	607, 500	456, 875	200,000	1, 264, 375
Total for Arkansas and tributaries	1832	617, 500	478, 875	200, 500	1, 296, 875
Yazoo	1873	107, 000	83, 000	25, 000	215,000
Tributaries:		101,000		=====	
Big Sunflower	1879	20,000	. 32,000	5,000	57,000
Coldwater	1879	7,000	4,000	10,000	21.000
Tchula lake	1881	1,,,,,,	12,000	3,000	15,000
Yalobusha	1881		11, 000		11,000
Tallahatchie	1879	6,000	26,000	5, 000	37,000
Total for tributaries	1879	33,000	85, 000	23,000	141.000
Total for Yazoo	1873	107,000	83, 000	25,000	215, 000
Total for Yazoo and tributaries	1873	140,000	168, 000	48, 000	356,000
Washita and Black	1871	243, 000	93, 500	15,000	351, 500
Little Missouri, of Arkansas	1871	20,000	50, 500	10,000	20.000
Tenses	1881	20,000	16, 000	5,000	21.000
Saline	****		01 500	1 0,000	
	1880		21, 500		21, 300
Total for Washita, Black, and tributaries	1871	263, 000	131,000	20,000	414,000
Red	1828	1, 183, 265	440,000	102, 000	1, 725, 265
Tributaries:					
Little, of Louisiana	1888		2, 500	3, 000	5, 500
Caney via Little	1884		2, 500	!	2,500
Total for tributaries	1884		5, 000	3,000	8, 600
Total for Red	1828	1, 183, 265		102,000	
		l	440,000		1, 725, 36
Total for Red and tributaries	1828	1, 183, 265	445, 000	105,000	1, 733, 365
Total for Lower Mississippi system	1827	4, 604, 677	15, 916, 125	3, 734, 200	24. 255, 002
RED RIVER OF THE NORTH.					
Total	1876	65, 000	128, 000	25, 000	218.000
MISCONI I ANDOLO				; 	
MISCELLANEOUS.	1000	848.000		į	A.A A.A
Construction of snag and dredge boats	1852	846,000			846, 000
Surveys.	1819	286,000			≥%.000
Surveys and estimates of canal from Cumberland to mouth of Youghiogheny, 1874 and 1875.	1874	210, 000		 	210, 800
Total for miscellaneous	1210	1 249 000		· 	1 244 464
TOTAL TOT INTROCUMBUOUS	1819	1, 342, 000	· · · · · · · · · · · · · · · · · · ·		1, 342, 400

TABLE 30.—CONGRESSIONAL APPROPRIATIONS.

STATEMENT BY TOTALS OF THE APPROPRIATIONS GIVEN BY LOCALIZED ITEMS IN THE PRECEDING TABLE.

LOCALITIES.	Date of ear- liest appro- priation.	Appropriations up to and including 1879.	Appropriations from 1880 to 1889, inclusive.	Appropriations by act of Congress, September, 1890.	Total appropriations up to date.
Grand total for the Valley	1819	\$28, 200, 707	\$39, 290, 556	\$9, 336, 200	\$76, 827, 463
Upper Mississippi	1836	10, 612, 064	8, 072, 510	2, 067, 000	20, 751, 574
Saint Croix	1878	18, 000	74, 500	8,000	100, 500
Chippewa	1876	34, 465	128, 750	10,000	173, 21
Illinois	1852	639, 150	947, 500	2,000	1, 588, 65
Missouri	1832	1, 489, 000	4, 011, 250	1, 159, 000	6, 659, 25
Total for Upper Mississippi system	1832	12, 792, 679	13, 234, 510	3, 246, 000	29, 273, 18
Ohio	1835	5, 289, 500	3, 226, 813	640,000	9, 156, 31
Allegheny	1879	10,000	222, 500	20,000	252, 50
Monongahela	1872	187, 000	411, 233	176,000	774, 23
Muskingum	1879	80, 000	389, 500	30,000	449, 50
Little Kanawha	1876	43, 300	127, 875	40,000	211, 17
Great Kanawha	1873	1,002,500	1, 371, 500	305, 500	2, 679, 50
Big Sandy	1878	24, 000	241, 500	36,000	301, 50
Kentucky	1879	100, 000	1,067,000	180,000	1, 347, 00
Green	1888	• • • • • • • • • • • • • • • • • • • •	135, 000	25,000	160, 00
Wabash	1829	346, 500	401,000	65, 500	813, 00
Cumberland	1832	491,000	596, 000	292, 500	1, 379, 50
Tennessee	1827	1, 872, 551	1, 822, 000	520, 500	4, 215, 05
Total for Ohio system	1827	9, 396, 351	10, 011, 921	2, 331, 000	21, 739, 27
Lower Mississippi	1827	2, 212, 412	14, 461, 850	3, 318, 700	19, 992, 96
White	1872	188, 500	231, 400	42,000	461, 90
Arkansas	1832	617, 500	478, 875	200, 500	1, 296, 87
Yazoo	1873	140, 000	168, 000	48,000	356, 00
Washita	1871	263, 000	131, 000	20,000	414, 00
Red	1828	1, 183, 265	445, 000	105, 000	1, 733, 26
Total for Lower Mississippi system	1827	4, 604, 677	15, 916, 125	3, 734, 200	24, 255, 00
Red River of the North	1876	65, 000	128, 000	25, 000	218, 00
Miscellaneous	1819	1, 342, 000			1, 342, 00

TABLE 31.—NAVIGABLE WATERS.

NUMBER OF NAVIGABLE MILES ON THE RIVERS OF THE MISSISSIPPI VALLEY AND NUMBER OF MILES OVER WHICH A TRANSPORTATION BUSINESS WAS CONDUCTED IN 1889.

LOCALITIES.		Miles of navigable rivers in 1889.	LOCALITIES.	Miles of operated rivers in 1889.	navigabl
Grand total for the Valley	14, 266	15, 410	OHIO SYSTEM—Continued.		
Total for Upper Mississippi system	4, 103	4, 486	Big Sandy	26	
Total for Ohio system	4, 178	4, 406	Tug fork	1	10
Total for Lower Mississippi system	5, 695	6, 228	Levisa fork		8
Total for Red River of the North	290	290	Total for Big Sandy and tributaries	-	2
UPPER MISSISSIPPI SYSTEM.					93
Upper Mississippi:			Kentucky	261	20
Headwaters to Saint Louis	870	870	Green	1	15
W-(h-sanita)			Rough creek (or Barren)	25	-
Tributaries: Galena		6	Total for Green and tributaries	175	1
Fox and Wisconsin		62	Wabash	183	18
Minnesota	25	25	White, of Indiana	27	
Hennepin canal			Water to Wales have been been been been been been been be	270	
Cuivre		15	Total for Wabash and tributaries	210	21
Total for tributaries	25	108	Cumberland: Headwaters to mouth	578	57
Total for Upper Mississippi	870	870		510	- 01
Total for Upper Mississippi and tributaries	895	978	Tributaries: Obey		
Saint Croix	120	120	Caney fork	the field of	5
		120	Total for tributaries	92	13
Chippewa	57	57	Total for Cumberland	578	57
Illinois	225	225	Total for Cumberland and tributaries	670	73
			Tenuessee:		
Missouri: Headwaters to Saint Louis	2,519	2, 519	Headwaters to mouth	650	63
Tributaries:			Tributaries:		-
Osage	200	200	Duck		
Gasconade	87	87	Clinch	70	1
Yellowstone		300	Hiwassee	43	
Total for tributaries	287	587	French Broad, of Tennessee	90	
Total for the Missouri	2, 519	2, 519	Little Tennessee		1
Total for Missouri and tributaries	2,806	3, 106	Total for tributaries	203	29
Total for Adssourt and tributantes		8, 100	Total for the Tennessee	650	6
Total for Upper Mississippi system	4, 103	4, 486	Total for Tennessee and tributaries	853	90
Ohio:			Total for Ohio system	4, 178	4,4
Pittsburg to the mouth	967	967	LOWER MISSISSIPPI SYSTEM.		
m 21 - 1 - 1 - 1					
Tributaries: Guyandotte	80	80	Lower Mississippi:	1 004	
Licking		90	From Saint Louis to head of passes	1, 264	1, 2
Tradewater	22	22	Bayous:		
	100	100	Black		
Total for tributaries		192 967	Bouf	0.0000000000000000000000000000000000000	2
Total for the Onio	- 901	901	Courtableau		1
Total for Ohio and tributaries	1, 159	1, 159	D'Arbonne	43	
Allegheny	180	180	Lafourche	110	. 1
Monougahela		102	Loggy		
Cheat		90	Pierre	1	1
Buckhannon	48	48	Terrebonne	46	1
Total for Monongahela and tributaries	150	240	Steels	1	9.
	91	-	Cypress		
Muskingum	-	91	Total for bayous	715	
Little Kanawba	49	49	Tributaries:		
Great Kanawha	96	96	Forked Deer, south fork of	1	1
Elk	45	45	Big Black		
Gauley	27	27	Big Hatchie		1
	168	168	L'Anguille via Saint Francis	A COLUMN TO A COLU	

RIVERS OF THE MISSISSIPPI VALLEY.

TABLE 31.—NAVIGABLE WATERS—Continued.

NUMBER OF NAVIGABLE MILES ON THE RIVERS OF THE MISSISSIPPI VALLEY, ETC.-Continued.

LOCALITIES.	Miles of operated rivers in 1889.	Miles of navigable rivers in 1889.	LOCALITIES.	Miles of operated rivers in 1889.	Miles of navigable rivers in 1889.
LOWER MISSISSIPPI SYSTEM—Continued.	!		LOWER MISSISSIPPI SYSTEM—Continued.		
wer Mississippi tributaries—Continued.			Yazoo	173	173
Kaskaskia		24	Tributaries :		
Little, of Missouri, via Saint Francis	85	85	Big Sunflower	144	144
	ļ		Coldwater	25	25
Total for tributaries		607	Tchula lake	 	60
Total for bayous	715	874	Yalobusha		90
Total for Lower Mississippi	1, 264	1, 264	Tallahatchie	100	100
			Total for tributaries	269	419
Total for Lower Mississippi, bayous, and tribu- taries.	2, 387	2, 745	Total for Yazoo	173	173
			Total for Yazoo and tributaries	442	592
hite, of Arkansas	300	300	Washita and Black	306	306
Tributaries:			Tributaries :	\=.=	
Current	i .		Little Missouri, of Arkansas		
Black, of Missouri	1	100	Tensas and Macon	130	130
Little Red	90	90	Saline	80	80
Total for tributaries	190	190	Total for tributaries	210	210
Total for White	i .	300	Total for Washita and Black	306	306
•			Total for Washita, Black, and tributaries	516	516
Total for White and tributaries	490	490	Red:		
			Headwaters to mouth	1,000	1,000
rkansas:			Tributaries:		
Headwaters to mouth	771	771	Little, of Louisiana		25
Tributaries:			Total for tributaries		25
Fourche la Fave	44	44	Total for Red	1,000	1,000
Petit Jean	45	45	Total for Red and tributaries	1.000	1, 025
Total for tributaries	89	89	Total for Lower Mississippi system	5, 695	6, 228
Total for the Arkansas	771	771	RED RIVER OF THE NORTH.	!	
Total for Arkansas and tributaries	860	860	Total	290	290

TRAN-Pt. 2-30



TRANSPORTATION ON CANALS AND CANALIZED RIVERS.



TRANSPORTATION ON CANALS AND CANALIZED RIVERS.

BY THOMAS J. VIVIAN.

The report made on canals for the Tenth Census treated so fully of their history that nothing more need be said upon that branch of the subject than will be found in the comparative statistics of 1880 and 1889, given herewith. The present Report on Canals and Canalized Rivers has been made to conform as nearly as possible with those on transportation on the coasts, lakes, and rivers. The figures are grouped under the heads of "Construction", "Floating Equipment", "Traffic", "Income and Expenditures", and "Comparative Statistics", the plan of the tables being as follows:

PLAN OF THE TABLES.

Table 1.—Construction—Number of canals and canalized rivers, their dimensions, with date and cost of construction.

Table 2.—Floating equipment—Number, tonnage, and valuation of canal boats, with averages of tonnage and valuation.

Table 3.—Traffic—Freight carried on canals and canalized rivers.

Table 4.—Income and expenditures—Gross earnings, expenses, and net earnings of canals.

Table 5.—Comparative statistics—Operated mileage in 1880 and 1889.

Table 6.—Comparative statistics—Abandoned canals.

Table 7.—Comparative statistics—Traffic in 1880 and 1989.

Table 8.—Comparative statistics—Income and expenditures in 1880 and 1889.

The statistics of construction, equipment, traffic, and of income and expenditures are given for each reporting canal and by state totals, with segregations of the construction and traffic figures for state and corporation canals, United States government canals, and canalized rivers. By state canals is meant those works which are the property of the state in which they are located; by corporation canals is meant those works which belong to private parties or to companies. The United States government canals are those which were either built by the federal government or have become its property by purchase. By canalized rivers is meant those portions of watercourses which have been rendered navigable or whose navigation has been improved by the construction of locks and other works, with resulting slackwater.

Most of the state and corporation canals are used only for the transportation of freight in canal boats. Some of them, such as those used in Louisiana to connect the various bayous, are purely ship canals. The United States government canals are all ship canals, and the canalized rivers are grouped as such. The number and mileage of ship canals, including canalized rivers, are given in the accompanying summary:

TABLE A.-SUMMARY SHOWING THE NUMBER AND MILEAGE OF SHIP CANALS OF THE UNITED STATES.

CANALS AND CANALIZED BIVERS.	Number.	Mileage.
Total	. 48	1, 479. 63
State and corporation canals	18	360. 96
United States canals	9	40. 63
Canalized rivers	21	1, 078, 04

In Table 1 the ownership of each state and corporation canal is shown, the following statement giving the facts in condensed form:

TABLE B.-STATEMENT SHOWING THE OWNERSHIP OF STATE AND CORPORATION CANALS.

STATES.	Owned by states. (Miles.)	Owned by corporations (Miles.)
Total	1, 320. 66	943, 94
New York	560. 66	86.00
New Jersey		171.02
Pennsylvania		461.98
Delaware		14.00
Maryland		15. 00
Virginia		
North Carolina		13.00
Georgia		25. 00
Florida		10.50
Louisiana		38. 25
Texas		
Ohio	658. 00	
Illinois	102. 00	
Oregon		0. 75

The ownership of the United States government canals is indicated in the title. In the case of the canalize rivers the ownership is that of the public works whose construction has resulted in the mileage of slackwate navigation set opposite each improved stream. These facts are condensed as follows:

TABLE C.—STATEMENT SHOWING THE OWNERSHIP OF THE PUBLIC WORKS ON CANALIZED RIVERS, WITH THE MILEAGE OF THE RESULTING SLACKWATER NAVIGATION.

STATES.	Owned by states. (Miles.)	Owned by corporations. (Miles.)	Owned by United State government (Miles.)
Total	165. 20	131.00	781. 84
Maine	7.00		
New York	70. 20		
Pennsylvania		91. 00	23. 00
Virginia			11.50
West Virginia		40.00	58. 00
Ohio	· · · · · · · · · · · · · · · · · · ·		75. 00
Illinois	88. 00		139. 00
Iowa			4. 40
Wisconsin			169. 40
Kentucky			286. 50
Tennessee			14. 40
Alabama			0.04
Oregon			0. 60

The term "construction", referred to in the preceding plan of the tables, is used to include the number of works operated, length in miles, the number of locks, and the cost and date of original construction and improvement, the totals of these statistics being given in the subjoined statement:

TABLE D.—SUMMARY SHOWING THE OPERATED MILEAGE, NUMBER OF LOCKS, AND COST OF CANALS AND CANALIZED RIVERS.

		OPI	RATED MILE	AGE.		Cost of con-
CANALS AND CANALIZED BIVERS.	Number.	Total.	Canals.	Canalized rivers.	Number of locks.	struction and improvement.
Total	67	3, 383. 27	2, 305. 23	1, 078. 04	1, 097	\$188, 185, 880
State and corporation canals. United States canals. Canalized rivers.	ı	2, 264, 60 40, 63 1, 078, 04	2, 264. 60 40. 63	1, 078. 04	982 26 89	150, 461, 825 20, 517, 133 17, 186, 922

The floating equipment of canals, that is, the boats which can be considered as belonging to and as employed exclusively on canals, is here limited to state and corporation canals. The bulk of the equipment is made up of towed boats, although there is a slowly growing fleet of steamboats which are used chiefly as an experiment in motive power. The number, gross tonnage, and estimated valuation of both classes of canal boats are given in the accompanying summary:

TABLE E.-SUMMARY SHOWING NUMBER, TONNAGE, AND VALUATION OF CANAL BOATS.

CANAL BOATS.	Number.	Tonnage.	Valuation.
Towed. Steam	6, 376	964, 509	\$5, 300, 914
	138	14, 676	453, 000

The transportation movement on canals is now confined to that of freight, the amount in tons carried on all canals in the year of report being 48,668,325. The proportion of freight carried on state and corporation canals or United States government canals and on canalized rivers is shown in the following summary:

TABLE F.-SUMMARY SHOWING THE NUMBER OF TONS OF FREIGHT CARRIED ON CANALS AND CANALIZED RIVERS.

·	TONS.
Total	48, 668, 325
State and corporation canals	13, 269, 600
United States government canals	. 28, 507, 069
Canalized rivers	

While the amount of freight carried on the United States government canals and on canalized rivers is included in the reports of the lakes and rivers, it also forms a constituent of the canal traffic of the country. The figures are therefore given here, but are not included in the total for the United States except in the lake and river trade. A portion of the freight moved on state and corporation canals has also been originally reported elsewhere and has been similarly treated, the freight actually carried on canal boats and not reported elsewhere amounting to 10,504,896 tons. The distribution of this duplicated tonnage according to the localities of original report is shown in the following table:

TABLE G.—STATEMENT OF FREIGHT MOVED ON CANALS, BUT ORIGINALLY REPORTED IN OTHER DIVISIONS OF TRANSPORTATION ON WATER.

CANALS AND CANALIZED RIVERS.	ANALS AND CANALIZED RIVERS. Where originally reported.		
Total			38, 163, 429
State and corporation canals	Atlantic coast and Gulf of Mexico	2, 728, 014	
	Pacific coast	36, 69 0	
United States government canals	Great lakes	27, 491, 869	2, 764, 70
-	Mississippi valley	1, 015, 200	
Canalized rivers	Great lakes	346, 475	28, 507, 06
	Mississippi valley	6, 545, 181	6, 891, 656

The gross earnings, expenses, and net earnings, which make up the table entitled "Income and Expenditures", are only those of the state and corporation canals, neither the United States government canals nor the canalized rivers reporting any income and expense account; for, while it is a fact that both of the latter waterways require an expenditure for their maintenance, the amount so laid out is from appropriations by the United States, and the receipts from tolls form an income account which can not be considered that of transportation. The gross income of state and corporation canals amounted to \$4,089,132.26, the sources being either tolls or lockage. The expenditures amounted to \$2,122,376, and were made up of the maintenance of waterways and structure, wages, provisions, fuel, and keep of stock. The net income stood at \$1,966,756.26.

The 4 tables of comparative statistics show the variations of operated mileage, the extent of traffic, and the income and expenditures for the 2 years 1880 and 1889 and the mileage of abandoned canals. A comparison of mileage shows that the total operated mileage in 1880 was 3,235.78 and in 1889 3,383.27, an increase of 147.49 miles. This increased mileage is in the United States government canals and canalized rivers, the mileage of the state and corporation canals having decreased, as shown in the summary on the following page.

TABLE H.—STATEMENT SHOWING THE INCREASE OR DECREASE IN THE OPERATED MILEAGE OF CANALS IN 1890 AND 1889.

CANALS AND CANALIZED RIVERS.	1880	1889	Increase.	Decrease.
State and corporation canals	2, 746. 18	2, 264. 60	1	481.58
United States government canals	10.00	40.63	30. 63	
Canalized rivers	479.60	1, 078. 04	598. 44	
Total	3, 235, 78	3, 383, 27	629. 07	481. 58
Net increase		• • • • • • • • • • • • • • • • • • • •	147. 49	
			1	1

The decreased mileage is nearly all that of state and corporation canals given up between 1880 and 1889 as shown in Table 6. The abandoned mileage and works are as follows:

Total mileage of abandoned canals between 1880 and 1889	261. 69
Parts of the Erie canal	13.68
Parts of the Pennsylvania canal	140.00
Union canal	84.64
Alexandria and Georgetown canal	7.12
Parts of the Ohio canal	6.00
Parts of the Miami and Erie canal	10. 25

The other changes which brought about the decrease of the 481.58 miles of state and corporation canals are these: the Black River canal in 1880 contained 42.50 miles of slackwater, which is now placed with the canalized river mileage; the Chesapeake and Ohio canal was washed out in 1889 and was not reopened until 1892; the St. Mary Falls canal, 1.02 miles, and the Lake Superior canal, 2.12 miles, were reported in 1880 as state and corporation canals, but in this report they are classed with the United States government canals. These decreases were offset by the extension of the Company's canal in Louisiana from 12 miles to 22.25 miles, and by the increase in the mileage of the United States government canals and in that of canalized rivers shown in detail in Table 5.

No report of equipment was made for canals in the Tenth Census, so that a comparison in that branch of the subject is not possible.

The freight traffic of the canals and canalized rivers reported to the Tenth and Eleventh censuses is shown in Table 7, the figures being summarized as follows:

Table 1.—SUMMARY SHOWING THE FREIGHT TRAFFIC OF CANALS AND CANALIZED RIVERS OF THE UNITED STATES AS REPORTED IN 1880 AND 1889.

CANALS AND CANALIZED RIVERS.	1880 (Tons.)	1889 (Tons.)
Total	21, 044, 292	48, 668, 32
State and corporation canals	17, 548, 602	13, 269, 60 28, 507, 66
Canalized rivers	3, 495, 690	6, 891, 65

The decrease in the amount of freight carried on state and corporation canals in 1889, as compared with that carried in 1880, is due to the decrease of mileage by abandonment and temporary disuse of canals referred to in preceding paragraphs. The increase in the amount of freight carried on canalized rivers in 1889 over that of 1880 is due to the larger exploitation of this class of artificial waterway, and in 1880 no report was made of the freight passing through United States government canals.

In Table 8 will be found the statistics of income and expenditures as reported at the Tenth and Eleventh censuses, and from that table the following summary is derived:

TABLE J.—SUMMARY SHOWING THE GROSS INCOME AND EXPENDITURES OF CANALS OF THE UNITED STATES IN 1880 AND 1889.

ITEMS.	1880	1889
Gross income Expenditures	\$4, 302, 185. 00 2, 875, 335. 00	\$4, 089, 132. 26 2, 122, 376, 00
Net income	1, 426, 850. 00	1, 966, 756, 26

In order to secure a closer presentation of the comparative business done and financial returns by canals in 1880 and 1889, Tables 7 and 8 have been prepared in such a way as to show the mileage for which these statistics were reported in both 1880 and 1889, that for which they were reported in either 1880 or 1889, and mileage for which no business was reported in either of these years.

The mileage in Tables 5 and 7 includes certain United States government canals and canalized rivers existing in 1880 that were not reported in the Tenth Census. The names and mileage are as follows:

TABLE K.—STATEMENT SHOWING THE UNITED STATES GOVERNMENT CANALS AND CANALIZED RIVERS EXISTING IN 1880 THAT WERE NOT REPORTED AT THE TENTH CENSUS.

	MILES.
United States government canals	
Des Moines Rapids, Iowa	7.60
Louisville and Portland, Kentucky	2.40
Canalized rivers	
Songo, Maine	7.00
Seneca, New York	7.70
Beaver, Pennsylvania	6.00
Upper Appomattox, Virginia	
Great Kanawha, West Virginia	
Little Kanawha, West Virginia	
Fox, Wisconsin	
Chippewa, Wisconsin	

Table 8 is for canals only; the mileage includes the United States government canals existing in 1880 that were not reported in the Tenth Census, namely:

	MILES.
Total	10.00
Des Moines Rapids	7.60
Louisville and Portland	2.40

TABLE 1.—CONSTRUCTION—NUMBER, DIMENSIONS, DATE OF CONSTRUCTION, AND COST OF STATE SUMMARY.

CANALS AND CANALIZED RIVERS.
,
,
Total
State and corporation canals. United States government canals. Canalized rivers
United States government canals.

A.—STATE AND CORPORATION CANALS.

	STATES.	Canals.	, Points connected.	When buil
1	Total			ļ
	New York			· • • • • • • • • • • • • • • • • • • •
		Brie and branches (a) Oswego (a) Cayuga and Seneca (a) Champlain (a) Black River (a) Delaware and Hudson	Albany-Buffalo Oswego-Syracuse. Montezuma-Cayuga and Seneca lakes Whitehall-Waterford. Rome-Lyons Falls Rondout-Pennsylvania state line.	1825-182 1825-183 1817-182 1836-184
l	New Jersey		•	
	Ponneulyania	Delaware and Raritan (b) Delaware and Raritan Feeder Morris Penn's Neck (b)	New Brunswick-Bordentown Bull Island-Trenton Jersey City-Easton, Pa Salem creek-Delaware river	1825-183 1800-187
İ	rennsylvania	,		
		Pennsylvania	Columbia-Duncan Island Clark Ferry-Northumberland Northumberland-Wilkesbarre Junction-Huntingdon Northumberland-Flemington	1826-183
		Delaware and Hudson (see New York)	Honesdale-New York state line Columbia-Maryland state line	1826-18: 1837-18
		Schuylkill Navigation Company { Lehigh Coal and Navigation Company	Mill creek-Philadelphia Coalport-Easton	1816-18
		{ Delaware division	Easton-Bristol Muncy-Pennsylvania canal	18
	Delaware	•	Delaware city, DelChesapeake city, Md	
	Maryland	· · · · · · · · · · · · · · · · · · ·	Havre de Grace-Pennsylvania state line	
ı	•	Susquenta and Interact (see I chisyivania)	mavie de Graco-i cumsyn ama state mue	1001-10
	v	Albemarle and Chesapeake (b)	Elizabeth river, VaPasquotank river, N. C	1
l	North Carolina			-
!	Guargia	-	Alligator river-Mattamuskeet lako Clubfoot creek-Newport river Canjock bay-North river	1855–18
	CCC G. S.	Augusta (b)	Savannah river-Augusta Savannah river-Ogeschee river	i . 18
	Florida	Santa Fe (t)	Waldo-Melrose	1877-18
1	Louisiana			
	!	New Basin (b) Old Basin (Carondelet) (b) Harrey's (b) Company's (b). Secolas (Taglinferro) (b).	New Orleans-Lake Ponchartrain New Orleans-Bayou St. John Harvey-Bayou Barataria Mississippi river-Bayou Black Mississippi river-Bayou Barataria	18 1832–18
	Teves	Galveston and Brazos (b)	Galveston-Brazos river	1850-18
	Ohio	ı	(Salveston-Drazos river	
	:	()hio and branches (a) Walhonding (a). Hocking (a) Miami and Erio (a)	Cleveland-Portsmouth Rochester-Roscoe Carroll-Nelsonville Cincinnati-Toledo	1825-18 1836-18 1838-18 1825-18
	Illinois	Illinois and Michigan (a) (b)	Chicago-Lasalle	1836-18
	Oregon	Willamette Transportation and Lock Company (b)	Willamette river, around falls at Oregon city	18

AND CORPORATION CANALS, UNITED STATES GOVERNMENT CANALS, AND CANALIZED RIVERS. SUMMARY.

				CANALS AN	D CANALIZED R	IVARD.				
Length. Width.				Donah	Locks.				Cost of con-	
Total. (Miles.)	Canal. (Miles.)	Slackwater. (Miles.)	Surface. (Feet.)	Bottom. (Feet).	Depth. (Feet.)	Number.	Length. (Feet.)	Width. (Feet.)	Rise and fall. (Feet.)	struction and improvement
3, 383. 27	2, 132. 59	1, 250. 68				1,097				\$188, 185, 880
2, 264. 60 40. 63 1, 078. 04	2, 091, 96 40, 63	172. 64 1, 078. 04				982 26 89				150, 481, 825 20, 517, 133 17, 186, 922

A.—STATE AND CORPORATION CANALS.

Cost of con-	1	CKS.	LO			TH.	WIE		LENGTH.	
struction and	Rise and fall. (Feet.)	Width. (Feet.)	Length. (Feet.)	Number.	Depth. (Feet.)	Bottom. (Feet.)	Surface. (Feet.)	Slackwater. (Miles.)	Canal. (Miles.)	Total. (Miles.)
\$150, 481, 825				982				172. 64	2, 091. 96	2, 264. 60
73, 978, 122				349				52. 59	594. 07	646, 66
52, 540, 800 5, 239, 526 2, 232, 632 4, 044, 000	656. 46 155. 55 76. 58 179. 50	18 18 18 18	110 110 110 110	72 18 11 32	7 7 7 7 6	52½ 56 56 44 28 32	70 70 70 58 42	29. 59 20. 00	351. 80 18. 00 24. 77 81. 00	381. 39 38. 00 24. 77 81. 00 35. 50
3, 581, 954 6, 339, 210	1, 080. 00 1, 028. 00	15 15	90 100	109 107	6	28 32	42 48	3.00	35. 50 83. 00	86. 00
10, 929, 749				47					171.02	171. 02
4, 888, 749	150.00	24	220	14	6-7		60-80		66.00	66.00
6, 030, 000 41, 000	1, 674. 00	20	88	38	5 5	25 75	45 100		103. 00 2. 02	103. 00 2. 02
32, 020, 122				264				50. 05	414. 93	464.98
7, 731, 750	132, 00 68, 00 68, 00 255, 00 123, 00	14-17	85–180	71	41-6	25–32	40–100		193. 00	193.00
4, 931, 345	230. 00 619. 00	17	170	32 71	54 64	30	50 60		25. 00 30. 00	25. 00 30. 00
12, 461, 600	375.00 165.00	18 11-22	110 90-100	90	6	40 ; 26–45	44-60	50. 05	58. 18 108. 00	108, 23 108, 00
7,077	, 165.00			ļi	44	25	40		0. 75	0.75
3, 730, 230	32.00	24	220	3	9	<u></u>	66		14.00	14.00
]				15. 00	15. 00
2, 792, 363		·		8				31.00	36. 44	67. 44
1, 641, 363 1, 151, 000	2. 00 35. 00	40 16a	220 100	1	7 <u>1</u> 6	60	80 40–60	30. 00 1. 00	8. 44 28. 00	38. 44 29. 00
400,000							· · · · · · · · · · · · · · · · · · ·		13. 00	13.00
200, 000 200, 000				ļ	6 10		40 80		4. 50 3. 00 5. 50	4, 50 3, 00 5, 50
1, 907, 818		 		3	l	· · · · · · · · · · · · · · · · · · ·	· · · · · · · · · · · · · · · · · · ·	!	25. 00	25. 00
1,500,000 407,818				5	11 3		150 120		9. 00 16. 00	9. 00 16. 00
70,000				l	5	•	35		10. 50	10. 50
2, 015, 000				6	l!			9. 00	29, 25	28. 25
1, 000, 000 750, 000 150, 000		35	200	3	7 7 6		85 60 45		6, 50 2, 00 5, 75	6, 50 2, 00 5, 75
90, 000 25, 000	1	25 2 0	117 110	$\begin{vmatrix} & & 1 \\ 2 & \end{vmatrix}$	6 4		40 30	9.00	13. 25 1. 75	22. 25 1. 75
340, 000 14, 340, 634	!				31		50	30,00	8. 00	38.00
	1, 207, 00	15	90	280 150	4	26	40		658. 00 317. 00	317. 00
4, 695, 204 607, 269 975, 481 8, 062, 680	90. 00 203. 00 907. 00	15 15 15 15	90 87 87–99	11 26 93	4 4 54		40 40 50-60		25, 00 42, 00 274, 00	25. 00 42. 00 274. 00
7, 357, 787	141.00			15	6				102.00	102. 00
600,000	39. 75	40	210	5	9				0. 75	0.75

b Ship canal.

TABLE 1.—CONSTRUCTION—NUMBER, DIMENSIONS, DATE OF CONSTRUCTION, AND COST OF STATE AND B.—UNITED STATES GOVERNMENT CANALS.

	STATES.	Canals and canalized rivers.	Points connected.	When built.
1	Total		i	
2	Michigan	· · · · · · · · · · · · · · · · · · ·		· · · · · · · · · · · · · · · · · · ·
8 4 5 6 7 8 9	Kentucky	Coosa (a)	Portage lake-Lake Superior Keweenaw bay-Portage lake St. Clair river-Lake St. Clair. Keokuk-Nashville Coosa river, around Ten Island shoals Louisville-Portland	1868-1873 1866-1889 1868-1877 1879-1888 1828-1830
10	Tennessee	(Muscle Shoals (a)	Tennessee river, around Muscle shoals	1872-1889

C.—CANALIZED RIVERS.

1	Total			· · · · · · · · · · · · · · · · · · ·
2	Maine	Songo (c)	Sebago lake-Long Pond	
3	New York			
4 5		Black (c) Oneida (c) Seneca (c)	Carthage-Lyons Falls Three River Point-Brewerton Mud Lock-Baldwinsville	1839-1850
7	Pennsylvania			
8 9 10		Monongahela Ohio (f) Beaver (g)	Pittaburg, PaMorgantown, W. Va Ohio river, at Davis island Beaver-Economy	1878-1885
11	Virginia	Upper Appomattox (f)	Stony Point-Petersburg	
12			•	
13		Great Kanawha (f)	Loup Creek shoals-Point Pleasant	1873-1889
14	:	Little Kanawha (g)	Burning Springs-Parkersburg	
15	Ohio	Muskingum (f).	Zanesville-Marietta	1840
16	Illinois	Illinois	Lasalle-Grafton	1868-1889
17	Iowa	Mississippi (Des Moines Rapids) (f)	Nashville-Montrose	1868-1889
18	Wisconsin			
19 20	!	Fox (f) Chippewa (f)	Portage city-Green Bay Eauclaire-Mississippi river	1860-1889 1876-1889
21	Kentucky			• • • • • • • • • • • • •
22 23 24	į	Kentucky (f). Green and Barren (f). Big Sandy (f).	Oregon-Ohio river	1845-1889 1880-1889 1883-1889
25	Tennessee	Cumberland (f)	Nashville-Point above Nashville	1887-1889
26	Alabama	Black Warrior (f)	Daniel creek-Tuscaloosa	1887-1889
27	Oregon	Columbia (f)	Columbia river, at the Cascades	1879-1889

a Ship canal.

b Purchased by or transferred to the United States government, since the Tenth Census.

c Operated by the state.

d Cost of construction not separable from that of the Black River canal.

Elighty-five miles owned by a company, 17 miles by the United States government.

CORPORATION CANALS, UNITED STATES GOVERNMENT CANALS, AND CANALIZED RIVERS—Continued.

B.—UNITED STATES GOVERNMENT CANALS.

	LENGTH.	i	WID	rh.				Cost of con-		
Total. (Miles.)	Canal. (Miles.)	Slackwater. (Miles.)	Surface. (Feet.)	Bottom. (Feet.)	Depth. (Feet.)	Number.	Length. (Feet.)	Width, (Feet.)	Rise and fall. (Feet.)	struction and improvement
40. 62	40. 63					26				\$20, 517, 133
9.33	9. 33					7				9, 008, 534
1. 02	1.02				17	} 1	515 800	80 100		} · 3, 996, 736
2. 12 5. 00 1. 19	2. 12 5. 00 1. 19				14 14 16					3, 985, 787 181, 311 844, 700
7. 60	7. 60				5	3	325	80		4, 582, 009
5. 30	5. 30	ļ	••••••		3	3	210	40		519, 671
2. 40	2. 40	ļ	' 	! 	12	2	335	83	!	3, 250, 000
16.00	16, 00		!			11				3, 156, 919
14. 50 1. 50	14. 50 1. 50				6	} 11	300	60	1	3, 156, 919

C.—CANALIZED RIVERS.

1,078.04	,	1, 078. 04		'		89				17, 186, 922
7.00		7.00			10	1	96	24		20,000
70. 20	' !	70. 20		······		4		• • • • • • • • • • • • • • • • • • • •	•	368, 164
42, 50 20, 00 7, 70		42. 50 20. 00 7. 70			1	2 2	142 120	30 ³		(d) 368, 164
114. 00		114.00				12		•••••		3, 212, 836
e102, 00 6, 00 6, 00		102, 00 6, 00 6, 00			6	9 1 2	100 600 104	59 110 25		2, 283, 836 910, 000 19, 000
11. 50		11.50	<u> </u>	i 	21	5	60	90	·	388, 617
98, 00	'l	98.00	l,	!	l 	12		•••••		2, 444, 339
58. 00		58.00	ļ		7	{ 5 2	270 311	50 55		} 2, 046, 775
40.00	<u> </u>	40.00	<u> </u>	·	5	5	127	26		397, 564
75. 00		75. 00		! ! :		10	160	36	·	2, 033, 724
h 227. 00	<u> </u>	227.00		! !	7	3	850	73		1, 727, 297
4.40	<u> </u>	4. 40	<u> </u>		5			• • • • • • • • • • • • • • • • • • • •	.}[;	(i)
109.40		169. 40	ļ			28		• • • • • • • • • • • • • • • • • • • •	ļ	3, 219, 701
160. 40 9. 00		160. 40 9. 00			4-6 4-5	27	160 270	35 40		3,4063, 653 156, 048
286. 50	ļ	286. 50	"	· · · · · · · · · · · · · · · · · · ·		11		· · · · · · · · · · · · · · · · · · ·		2, 079, 670
98. 00 175. 00 13. 50		98. 00 175. 00 13. 50			5 3 5	5 5 1	149 145 160	38 36 52		1, 163, 077 674, 294 242, 299
14. 40		14. 40]		4	1	280	52		69, 563
0.04		0.04	۱ <u> </u>		6	1	322	52		188, 165
0. 60		0. GO	1		8	. 1	462	90		1, 434, 846

f Operated by the United States government. g Operated by a company. h Eighty-eight miles owned by the state, 139 miles by the United States government. i Cost of construction not separable from that of the Des Moines Rapids canal.

TABLE 26.—FLOATING EQUIPMENT—NUMBER, TONNAGE, AND VALUATION OF CANAL BOATS, WITH AVERAGES OF TONNAGE AND VALUATION.

			TO	W CANAL	BOATS.			871	LAM CANAI	BOATS.	
STATES.	Canals.	Num- ber.	Tounage.	Average tonnage.	Valuation.	Average valua- tion.	Num- ber.	Tonnage.	Average tonnage.	Valuation.	Average valua- tion.
Total		6, 376	964, 509	151	\$5, 300, 914	\$831	138	14, 676	108	\$453,000	\$3,283
New York		3, 557	619, 003	174	4, 073, 400	1, 145	96	11, 208	117	328, 100	3, 418
	Erie and branches	1,743	406, 061	233	2, 403, 500	1, 379	96	11, 208	117	328, 100	3, 418
	Cayuga and Seneca Champlain Black River	954 110 750	97, 597 10, 345 105, 000	102 94 140	893, 450 94, 950 681, 500	937 863 909				 	· · · · · · · · · · · · · · · · · · ·
New Jersey	Delaware and Hudson	314	24, 120	77	92, 275	294			·		
!	Delaware and Raritan (a)	314	24, 120	77	92, 275	294					
Pennsylvania	I CHII I I CCR (W)	2, 134	286, 315	134	960, 378	450	1	100	100	2,000	2, 000
	Pennsylvania	318	89, 040	280	166, 314	523	1	100	100	2. 000	2, 000
	Susquehanna and Tidewater	418 125 1, 273	54, 340 22, 000 120, 935	130 17 6 95	218, 614 66, 250 509, 200	523 530 400		!			
Delaware								!	ļ	! :	
Maryland	Susquehanna and Tidewater (see Pennsylvania).				 			l 	! 		·
Virginia	Albemarle and Chesapeake (a)						 		 	l	
North Carolina	Fairfield (a)							ļ 			
Georgia		25	1,000	40	10,000	400	ļ	: •••••	······	: 	
	Augusta (a)	25	1,000	40	10, 000	400					
Florida	Santa Fe (a)	· · · · · · · · · · · ·	:¦	!	! 	ļ		, ,	! 		
Louisians	New Basin (a) Old Basin (Carondelet) (a) Harvey's (a) Company's (a) Secolas (Tagliaferro) (a)										!
Texas	Galveston and Brazos (a)		!					 	 		
Ohio		275	22, 000	80	82, 500	300	8	640	80	14, 400	1, 800
	Ohio and branches	275	22. 00u	80	82, 500	300	8	640	80	14, 400	1, 80
Illinois		71	12, 071	170	82, 361	1, 160	33	2, 728	83	108, 500	3, 28
Oregon	Willamette Transportation and Lock Company. (a)		<u> </u>	 :					ļ		! !

c Ship canal.

TABLE 3.—TRAFFIC—TONS OF FREIGHT CARRIED ON STATE AND CORPORATION CANALS, UNITED STATES GOVERNMENT CANALS, AND CANALIZED RIVERS.

m-4-1			MARY.		TONS.
nited States gover	mment canals				28 507 06
	A.—STAT	E AND COL	RPORATION CANA	LS.	
STATES.	Canals and canalized rivers.	Freight traffic. (Tons.)	STATES.	Canals and canalized rivers.	Freight traffic. (Tons.)
Total			North Carolina		2, 12
iew York		6, 816, 304		Fairfield (a)	2, 12
	Erie and branches Oewego Cayuga and Seneca.	170, 078 196, 138	Georgia	Albemarle and Chesapeake (see Virginia) (a)	40, 39
	Champlain Black River Delaware and Hudson	1, 187, 038 143, 561 1, 445, 935	•	Augusta (a)	23, 66 16, 72
√ew Jersey		1, 738, 905	Florida	Santa Fe (a)	1, 00
	Delaware and Raritan (a)	1, 276, 269 462, 636	Louisiana	New Basin (a)	293, 07
Pennsylvania	Penu's Neck (a)	1, 359, 665	1	(l)d Basin (Carondelet) (a) Harvey's (a). Company's (a).	66, 47
	Pennsylvania	423, 073	Towns	Secolas (Tagliaferro) (a)	· · · · · · · · · · · · · · · · · · ·
	Susquehanna and Tidewater Schuylkill Navigation Company Lehigh Coal and Navigation Company	125, 555 219, 697 591, 340	11	Carroscon and Diazos (a)	
Delaware	Muncy	736, 879	:	Ohio and branches	129, 39 94
_	Susquehanna and Tidewater (see Pennsylvania)	·	i, I ^l	Miami and Erie	7, 35 969, 47
/irginia	Albemarle and Chesapeake (a)	395, 004 316, 793	.i	Illinois and Michigan (a)	742, 39 36, 69
	Dismal Swamp (a)	78, 211	<u> </u>	pany. (a)	
	B.—UNITED	STATES C	OVERNMENT CA	NALS.	
	,		Alabama		
dichigan	St. Mary Falls (a)	27, 491, 869 7, 516, 022	il .	Louisville and I officiald (c)	
	Lake Superior (a) Keweenaw Bay and Portage Lake (a) St. Clair Flats (a)	8, 284 249, 703 19, 717, 860		Muscle Shoa's (a)	
lowa	Des Moines Rapids (a)	897, 140			
	C	.—CANALI	ZED RIVERS.		
Total		6, 891. 656	Ohio	Muskingum	10, 28
daine	Songo		Illinois	Illinois	180, 26
Yew York	Black Oneida	••••••	Visconsin	Miasissippi (Des Moines Rapids)	897, 14
ennsylvania	Seneca	3, 294, 932		Fox	346, 47 325, 47
	Monongahela	3, 294, 932	Kentucky		1, 076, 2
virginia	Ohio Beaver Upper Appomattox			Kentucky	256, 95 819, 27
West Virginia	Opper Appoint tox	1, 260, 859	Tennessee	Cumberland	
	Great KanawhaLittle Kanawha	1, 145, 202 115, 657	Alabama	Black Warrior	· · · · · · · · · · · · · · · · · · ·
			Oregon	Columbia	

a Ship canal.

TABLE 4.—INCOME AND EXPENDITURES—GROSS EARNINGS, EXPENSES, AND NET EARNINGS OF CANALS. (a)

STATES.	Canals.	Gross earnings.	Expenses.	Net earnings.	Net loss.
Total		\$4, 089, 132. 26	\$2, 122, 376. 00	\$1, 966, 756. 26	
New York		916, 884. 83	1, 037, 824. 33		\$120, 939, 56
	Erie and branches Oswego Cayuga and Seneca Champian)	786, 257. 86	71, 040. 00	
	Black River Delaware and Hudson]	251, 566. 47		191, 979. 50
New Jersey		335, 239. 81	301, 635. 25	33, 604. 56	\ <u></u>
	Delaware and Raritan (b)		301, 635, 25	33, 604. 56	
Pennsylvania	'	2, 430, 829. 04	476, 169. 34	1, 954, 659. 70	
	Pennsylvania. Delaware and Hudson (see New York)	172, 342. 19	228, 808. 99		56, 466. 80
	Susquehanna and Tidewater Schuylkill Navigation Company Lehigh Coal and Navigation Company Muncy	18, 189, 30 102, 010, 38 2, 138, 287, 17	88, 897, 55 43, 309, 18 115, 153, 62	58, 701. 20 2, 023, 133. 55	70, 708. 25
Delaware		189, 117. 61	51, 786. 38	137, 331. 23	
	Chesapeake and Delaware (b)	189, 117. 61	51, 786. 38	137, 331. 23	
Maryland	Susquehanna and Tidewater (see Pennsylvania)			į	!
Virginia	Albemarle and Chesapeake (b)		 	! 	
North Carolina	Fairfield (b) Newberne and Beaufort (b) Albemarle and Chesapeake (see Virginia) (b)			l	
Georgia		5, 000. 00	5, 500. 00		i
	Augusta (b) Ogeochee	5, 000. 00	5, 500. 00		500.00
Florids	Santa Fe (b)				
Louisiana	New Basin (b) Old Basin (Carondelet) (b) Harvey's (b) Company's (b) Secolas (Tagliaferro) (b)				
Texas	Galveston and Brazos (b).	1			
Ohio	\		163, 981. 75		52, 994. 2
	Ohio and branches. Walhonding. Hocking. Miami and Erie	2, 613, 15	88, 519, 30 890, 15 6, 219, 11 68, 353, 19	1. 97 11, 123. 53	60, 513. 8 3, 605. 9
Illinois	A AMERICA WATER OF THE STATE OF	101, 073, 51	85, 478. 95	15, 594. 56	
	Illinois and Michigan (b)	101, 073. 51	85, 478. 95	15, 594. 56	
Oregon	Willamette Transportation and Lock Company (b)	!			

a The figures given are only for state and corporation canals, neither the United States government canals nor the canalized rivers reporting income or expenditure.

b Ship canal.

TABLE 5.—COMPARATIVE STATISTICS—MILEAGE OPERATED IN 1880 AND 1889 BY STATE AND CORPORATION CANALS, UNITED STATES GOVERNMENT CANALS, AND CANALIZED RIVERS.

SUMMARY.

					St.MA	IARY.						
			AND CANAI					Miles op erated ic 1889 (in cluding slack- water)	erated 1- 1880 cludi slac	d in (in- ing :k-	геале.	Decrease.
Total								3, 383.	27 3, 23	5. 78 1	17. 49	
State and corporat United States gov Canalized rivers .	tion canalsernment canals	• • • • • • • • • • • • • • • • • • •		••••••	· · · · · · · · · · · · · · · · · · ·			2, 264. 40. 1, 078.	63 1			481. 58
			A.—ST	ATE A	ND COH	PORATION CAN	ALS.		'	! _	1	
STATES.	Canals.	erated in	Miles operated in 1880 (including slack-water).	In-	De- crease.	STATES.	('anals.	1	1889 (in-	Miles op- erated in 1880 (in- cluding slack- water).	In- crease	De- crease.
Total		2, 264. 60	2, 746, 18	 	. 481.58	North Carolina			13.00	13, 00		1.
New York		646.66	702. 84		56. 18		Fairfield (a) Newberne and	Beau	4. 50 3. 00	4. 5 0 3. 00		- ·
	Erie and branches Oswego Cayuga and Seneca Champlain	24. 77	395. 07 38. 00 24. 77 81. 00				fort. (a) Albemarle and peake. (a)	1	5. 50		i	
	Black River Delaware and Hudson	35, 50	78. 00 86. 00		42.50	Georgia	 		25. 00	25. 00	! 	· · · · · · · · · · · · · · · · · · ·
New Jersoy					· 		Augusta (a) Ogrechee		9. 00 16. 00	9. 00 16. 00		
	Delaware and Raritan (a). Morris Penn's Neck (a)	103.00		,		Florida	Santa Fe (a)	·····	10. 50	10.50		
Pennsylvania		464. 98	689. 62		224.64	Louisiana			38. 25	28. 00	10. 25	s
	Pennsylvania Delaware and Hudson Susquehanna and Tide- water.	193, 00 25, 00 30, 00	333, 00 25, 00 30, 00				New Basin (a) Old Basin (Caronde Harvey's (a)	let)(a).	6. 50 2. 00 5. 73			-;
	Union Schuylkill Navigation Company.	108. 23	84. 64 108. 23		84. 64		Company's (a) Secolas (Tagliafer	ro) (a).	1. 75	12.00 1.75	10. 25	i (
	Lehigh Coal and Naviga- tion Company. Muncy	108. 00 0. 75	108.00	İ		Texas	Galveston and Bra	i	38. 00	38, 00		•!
Delaware	Chesapeake and Dela-	14.00	14: 00	İ		Ohio	Ohio and been shoo	- 1	658. 00		·	
Maryland	ware. (a)	15.00	199. 50	<u> </u>	184. 50		Ohio and branches Walhonding Hocking Miami and Erie		317. 00 25. 00 42. 00 274. 00	42.00		
	Chesapeake and Ohio Susquehanna and Tide- water.	(b) 15.00	184, 50 15, 00		184. 50	Illinois	Illinois and Michig	gan (a).	102.00	102.00	<u>.</u>	
Virginia	i	67. 44	74. 56	ļ ——	7. 12	Oregon	Willamette Trans tion and Lock pany. (a)	Com-	0. 75	0.75	' i	···
	Albemarle and Chesa- peake. (a)	38. 44	38. 44	· · · · · · · · · · · · · · · · · · ·		Michigan		 		3. 14	·	. 3. 14
	Dismal Swamp (a) Alexandria and George- town.	29.00	29. 00 7. 12		7.12		St. Mary Falls (a) Lake Superior (a)			1. 02 2. 12		1. 02 2. 12
			B.—UNIT	red st	ATES G	OVERNMENT CA	ANALS.					
Total		40. 63	10.00			Iowa	Des Moines Rapid	s (a)	7. 60	7. 60	 	
dichigan	•••••	9. 33		9. 33		Alabama	Соова (а)	ı	5. 30		5. 30	·
	St. Mary Falls (a) Lake Superior (a) Keweenaw Bay and Port-	2. 12				Kentucky	Louisville and land. (a)	Port-	2.40	2. 40	10.00	'. .
		, 0.00	1	5.00	1	ЭЭВВВИИЧЬ			16.00		16.00	,

a Ship canal.

b Rendered useless in 1889 by the floods of June of that year.

TABLE 5.—COMPARATIVE STATISTICS—MILEAGE OPERATED IN 1880 AND 1889 BY STATE AND CORPORATION CANALS, UNITED STATES GOVERNMENT CANALS, AND CANALIZED RIVERS—Continued.

C.—CANALIZED RIVERS.

STATES.	Canalized rivers.		Miles op- erated in 1880 (in- cluding slack- water.)	In- crease.	De- crease.	STATES.	Canalized rivers.	Miles op- erated in 1889 (in- cluding slack- water.	Miles op- erated in 1880 (in- cluding slack- water.)	In- De-
Total		1. 078. 04	479. 60	598. 44		Ohio	Muskingum	75. 00	75. 00	
Маіпе	Songo	7.00	7.00			Illinois	Illinois	227.00		227. 00
New York		70. 20	27.70	42. 50		Iowa	Mississippi (Des Moines rapids).	4.40		4.40
	BlackOneida	20.00	20.00			Wisconsin	' 	169. 40	169. 40	<u></u>
Pennsylvania	Seneca	7. 70 114. 00	7. 70 91. 00	1	i		Fox. Chippewa	9. 00	9. 00	
	Monongahela		85.00			Kentucky		286. 50	•••••	286. 50
	Ohio (Davis island) Beaver	6. 00 6. 00	6.00	6.00			Kentucky	175, 00		98. 00 175. 00
Virginia	Upper Appoinattox	11.50	11.50			1	Big Sandy		• • • • • • • • • • • • • • • • • • • •	13.50
West Virginia	 	98.00	98.00	 ,•••••		Tennessee	Cumberland	14. 40	·	14. 40
	Great Kanawha		58.00			Alabama	Black Warrior		•••••••	
	Little Kanawha	40.00	40.00	` 		Oregon	Columbia (at Cascades)	0.60		0.60

TABLE 6.—COMPARATIVE STATISTICS—LENGTH AND COST OF ABANDONED CANALS UP TO 1880 AND FROM 1880 TO 1889.

STATES.	. Canals.	Length. (Miles.)	Cost of construction.
Total up to 1889		2, 215. 25	\$51, 171, 016
Total up to 1880 Total 1880 to 1889		1, 953. 56 261. 69	44, 013, 166 7, 157, 850
New York	Erie and branches (part)	13. 68	
Pennsylvania		224. 64	5, 907, 850
,	Pennsylvania (part)	140, 00 84, 64	5, 907, 850
Virginia	Alexandria and Georgetown	7. 12	1, 250, 000
Ohio		16. 25	!
!	Ohio and branches (part)	6. 00 10. 25	

TABLE 7.—COMPARATIVE STATISTICS—FREIGHT TRAFFIC IN 1880 AND 1889. SUMMARY.

CANALS AND CANALIZED RIVERS—	MILES	(INCLUDIN	G BLACKW	ATER).	FREIGHT TRAFFIC (TONS).				
CENAL END CANADIDE AND END	1889	1880	Increase.	Decrease.	1889	1880	Increase.	Decrease.	
Total	3, 383. 27	3, 235. 78	147. 49		48, 668, 325	21, 044, 292	27, 624, 033		
Reporting freight traffic in 1880 and 1889	2, 356. 83 805. 15 221. 29	2, 552. 26 570. 82 112. 70	234. 33 108. 59	195. 43	16, 537, 123 32, 131, 202	18, 978, 971 2, 065, 321	30, 065, 881	2, 441, 848.	
YOU LEBOLUING IT GITTLE 1000 OL 1000	221. 29	112. 70	100.09			i	ı **** ****		

A.—CANALS AND CANALIZED RIVERS REPORTING FREIGHT TRAFFIC IN 1880 AND 1889.

		MILES (INCLUDING SLACKWATER).				FREIGHT TRAFFIC (TONS).				
STATES.	Canals and canalized rivers.	1889	1880	Increase.	Decrease.	1889	1880	Increase.	Decrease	
Total		2, 356. 83	2, 552. 26		195. 43	16, 537, 123	18, 978, 971		2, 441, 848	
New York	State and corporation canals	646.66	702. 84		56. 18	6, 816, 304	7, 766, 969		950, 66	
	Erie and branches	381. 39	395, 07		13. 68	3, 673, 554	4, 608, 651		935, 09	
	Oawego	38.00	38.00			170, 078	427, 863		257, 78	
	Cayuga and Seneca Champlain	24. 77 81. 00	24. 77 81. 00			196, 138 1, 187, 038	125, 331 1, 200, 508	70, 807	13, 46	
	Black River Delaware and Hudson	35. 50	78. 00 86. 00		42. 50	143, 561 1, 445, 935	75, 308 1, 329, 313	68, 253 116, 622		
i		1								
lew Jersey	State and corporation canals	169.00	169. 00		,	1, 738, 905	1,851,568	<u> </u>	112, 66	
;	Delaware and Raritan (a)	66.00 103.00	66. 00 103. 00			1, 276, 269 462, 636	1, 348, 082 503, 486		71, 81 40, 85	
		566, 23	689. 23		123. 00	4, 654, 597	1		1	
ennsylvania					·	; 	6, 024, 247		1, 369, 65	
	State and corporation canals	464. 23	604. 28		140.00	1, 359, 665	2, 573, 847	i	1, 214, 18	
i	Penneylvania	193.00	333.00	` 	140.00	423, 073	861, 798		438, 72	
	Susquehanna and Tidewater	30. 00 108. 23	30. 00 108. 23	· · · · · · · · · · · · · · · · · · ·		125, 555 219, 697	362, 295 630, 416		236, 74 410, 71	
	Lehigh Coal and Navigation Company	108.00	108.00			591, 340	719, 338		127, 99	
	Delaware and Hudson (see New York)	25.00	25. 00							
	Canalized rivers: Monongahela	102.00	85.00	17. 00	! .•••••	3, 294, 932	3, 450, 400	! ,	155, 46	
Delaware	State and corporation canals: Chesapeake and Delaware (a)	14.00	14.00			736, 879	959, 146		222, 26	
faryland	State and corporation canals: Susquehanna and Tidewater (see Pennsylvania)	15. 00	15.00				<u> </u>			
rginia	State and corporation canals	67. 44	67.44			595, 004	406, 731		11, 72	
1	Albemarle and Chesapeake (a) Dismal Swamp (a)	38. 44 29. 00	88, 44 29, 00			316, 793 78, 211	400, 000 6, 731	71, 480	83, 20	
North Carolina	• ' '	:	10.00			2, 124	40, C00		37, 87	
	Albemarle and Chesapeake (see Virginia) (a) Fairfield (a)		5, 50 4, 50			2 124	40, 000	'	37, 87	
leorgia	State and corporation canals	1				40, 392	23, 602	16, 790	!	
			¦			23, 668	2. 697	20, 971	`	
	Augusta (a) Ogeechee	16.00	16.00			16, 724	20, 905	20, 911	4, 18	
ouisians	State and corporation canals	8.50	8. 50			293, 070	318, 096		25, 02	
	New Basin (a)	6. 50	6.50			226, 594	177, 108	49, 486		
İ	Old Basin (Carondelet) (a)						140, 988	40, 400	74, 51	
)hio		733.00	749. 25	1	16. 25	1, 117, 457	837, 252	280, 205		
j	State and corporation canals	658.00	674 25		16. 25	1, 107, 176	791, 962	315, 214		
	Ohio and branches	317.00	323 00	·	6.00	129, 398	429, 626		300, 22	
i	Walhonding	25.00	25.00			948	3, 309		2, 30 27, 93	
ļ	Hocking Miami and Erie	42. 00 274. 00	42. 00 284. 25		10. 25	7, 353 969, 477	35, 290 323, 737	645, 740	27, 93	
ļ		2.5.00	202.20	;	10.20		020, 101	010, 110		
	Canalized rivers: Muskingum	75.00	75.00			10, 281	45, 290		35,00	
llinois	State and corporation canals:			1						

a Ship canal.

TABLE 7.—COMPARATIVE STATISTICS—FREIGHT TRAFFIC IN 1880 AND 1889—Continued.

B.—CANALS AND CANALIZED RIVERS REPORTING FREIGHT TRAFFIC IN 1880 OR 1880.

		MILES (INCLUDING SLACKWATER).				FREIGHT TRAFFIC (TONS).				
STATES.	Canals and canalized rivers.	1889	1880	Increase.	Decrease.	1889	1880	Increase.	Decrease	
Total		805. 15	570. 82	234. 33		32, 131, 202	2, 065, 321	30, 065, 881	;	
New Jersey	State and corporation canals: Penn's Neck (a).	2. 02	2.02			<u>-=</u>	6,000		6,00	
Pennsylvania	State and corporation canals	0.75	85. 39		84. 64		33, 6 88		32, 68	
	Union Muncy	0. 75	84. 64 0. 75		84. 64		29, 853 3, 835		29, 85 3, 83	
Maryland	State and corporation canals: Chesapeake and Ohio	(b)	184. 50		184. 50		655, 423	· · · · · · · · · · · · · · · · · · ·	655, 42	
Virginia	State and corporation canals: Alexandria and Georgetown		7. 12		7. 12		125, 931		125, 93	
West Virginia	Canalized rivers	98. 00	98. 00			1, 260, 859		1. 260, 859		
	Great Kanawha Little Kanawha	58. 00 40. 00	58. 00 40. 00			1, 145, 202 11 5 , 657		1, 145, 202 115, 657		
Kentucky		275. 40	2. 40	273, 00		1, 694, 288		1, 694, 288	- <u></u>	
	United States government canals: Louisville and Portland (a)	2. 40	2. 40	l 		618, 060		618, 060		
•	Canalized rivers	273.00		273. 00	ļ. <u></u> .	1, 076, 228		1, 076, 228	 	
	Kentucky Green and Barren	98. 00 175. 00		98. 00 175. 00		256, 950 819, 278	¹	256, 950 819, 278		
Iowa	<u> </u>	12.00	7. 60	4.40		794, 280	! 	794, 280	······	
	United States government canals: Des Moines Rapids (a) Canalized rivers:	7. 60			1	397, 140	:	397, 140		
Michigan	Mississippi (Des Moines rapids)	9.33	3.14			397, 140 27, 491, 869	1, 244, 279	397, 140 26, 247, 590		
arionigum	State and corporation canals				3.14	21, 451, 665	1, 244, 279		1, 244, 27	
	St. Mary Falls (a) Lake Superior (a)	 	1.02 2.12		1. 02 2. 12		1, 244, 279	ļ 		
	United States government canals	9. 33	·	9. 33		27, 491, 869	 	27, 491, 869	1	
	St. Mary Falls (a) Lake Superior (a) Keweenaw Bay and Portage Lake (a) St. Clair Flats (a)	5. 00				7, 516, 022 8, 284 249, 703 19, 717, 860		7, 516, 022 8, 284 249, 703 19, 717, 860		
Illinois	Canalized rivers:	227. 00		. 227.00		180, 264	! !	180, 264		
Wisconsin	Canalized rivers	169. 40	169. 40			671, 952		671, 952		
	Fox. Chippewa	160. 40 9. 00	160, 40 9, 00	'		346. 475 325, 477		346, 475 325, 477		
Florida	State and corporation canals: Santa Fe (a)	10.50	10. 50	i '	 .j	1,000	!	1,000		
Oregon		0.75	0.75	!		36, 69 0		36, 690		

a Ship canal.

b Rendered useless in 1889 by the floods of June of that year.

TABLE 7.—COMPARATIVE STATISTICS—FREIGHT TRAFFIC IN 1880 AND 1889—Continued. C.—CANALS AND CANALIZED RIVERS NOT REPORTING FREIGHT TRAFFIC IN EITHER 1880 OR 1889.

		MILES (INCLUDING SLACKWATER).				FREIGHT TRAFFIC (TONS).			
STATES.	Canals and canalized rivers.	1889	1880	Іпстеане.	Decrease.	1889	1880	Increase.	Decrease
Total		221. 29	112.70	108. 59					1
Maine	Canalized rivers: Songo	7.00	7. 00						
New York	Canalized rivers	70. 20	27. 70	42. 50		ļ. 			
	Black OneidaSeneca	42. 50 20. 00 7. 70	20.00 7.70	42. 50					
Pennsylvania	Canalized rivers	12.00	6.00	6.00	¦		! !	! 	
	Ohio (Davis island)	6. 00 6. 00	6, 00	6. 00					
Virginia	Canalized rivers: Upper Appomattox	11.50	11.50	ļ 			!		
North Carolina	State and corporation canals: Newberne and Beaufort (a)	3, 00	3, 00	 . 			l		: · • • • • • • • • • • • • • • • • • • •
Louisiana	State and corporation canals:	29. 75	19, 50	10, 25			l 	 	
!	Harvey's(a). Company's(a). Secolas (Tagliaferro) (a).	5. 75 22. 25 1. 75	5. 75 12. 00 1. 75	10. 25					
Texas	State and corporation canals: Galveston and Brazos (a)	38. 00	38.00	: • • • • • • • • • • • • • • • • • • •			<u> </u>		! · • • • • • • • • • • • • • • •
Alabama		5. 34		5. 34					
	United States government canals: Coosa (a)	5. 30		5. 30			• • • • • • • • • • • • • • • • • • • •		
	Canalized rivers: Black Warrior	0.04		0.04			· · · · · · · · · · · · · · · · · · ·		! · • • • • • • • • • • • • • • • • • • •
Cennessee		30. 40		30. 40					
	United States government canals	16. 00		16.00			_		<u> </u>
	Muscle Shoals (a)	14. 50 1. 50		14. 50 1. 50					
	Canalized rivers: Cumberland.	14. 40	ļ	14. 40		ļ	ļ	ļ	. <u> </u>
Kentucky	Canalized rivers: Big Sandy	13. 50		13. 50		· · · · · · · · · · · · · · · · · · ·	: 	 	
)regon	Canalized rivers : Columbia	0, 60		0.60		!	· •••••		·

a Ship canal.

TABLE S.—COMPARATIVE STATISTICS—INCOME

SUMMARY.

	CANAL S —	MILE	s (including	SLACKWATE	ATER).	
	Canala	1889	1880	Increase.	Decrease.	
1	Total	2, 305. 23	2, 756. 18		4 50. 9 5	
2 8 4	Reporting income and expenditures in 1880 and 1889 Reporting income and expenditures in 1880 or 1889 Not reporting income and expenditures in either 1880 or 1889	1, 902. 39 339. 58 63. 26	2, 072. 32 648. 09 35. 77	27. 49	169. 93 308. 51	

A.—CANALS REPORTING INCOME AND EXPENDITURES IN 1880 AND 1889.

		MILES	(INCLUDING	SLACKWATE	t).
STATES.	Canals.	1889	1880	Increase.	Decrease.
Total		1, 902. 39	2, 072. 32		109.93
New York	-	530. 16	543. 84		13. 68
	(Krie and branches	381. 39 38. 00	395. 07 38. 00		
	Cavuga and Seneca.	24.77	24.77		
	Delaware and Hudson	86. 00	86. 00		
New Jersey	Morris	103.00	103.00		
Pennsylvania		464. 23	604. 23		140.00
	Pennsylvania	193, 00	333.00		140, 00
	Susquehanna and Tidewater	30.00	30.00		
	Schuylkill Navigation Company.	108. 23	108. 23		
	Lebigh Coal and Navigation Company Delaware and Hudson	108. 00 25. 00	108. 00 25. 00		
Delaware		14.00	14.00		
Maryland	Susquehanna and Tidewater	15. 00	15, 00		
Georgia	Ogeochee	16.00	16. 00	ļ 	
Ohio		658. 00	674. 25		16. 25
	Chio and branches	317. 00			6.00
	Walhonding	25. 00	25.00		
	Hocking.	42.00			
	Miami and Erie	274.00	284. 25	ا ا	10. 25
Illinois	Illinois and Michigan (a)	102.00	102.00	:	

B.-CANALS REPORTING INCOME AND EXPENDITURES IN 1880 OR 1889.

					 	
1	Total		339. 58	648. 00		308. 51
2	New York	-	- 116. 50			42.50
3 4	,	Champlain Black River.	81. 00 35. 50			42.50
5	New Jersey	Delaware and Raritan (a)	66.00	66. 00	ļ	
6	Pennsylvania		0. 75	85. 39	<u> </u>	84. 64
7 8	I	Union	0. 75	84. 64 0. 75		84. 64
9	Maryland	. Chesapeake and Ohio	(b)	184. 50		184. 50
10	Virginia		67. 44	74. 56		7. 12
11 12 13	!	Albemarle and Chesapeake (a) Dismal Swamp (a) Alexandria and Georgetown	38. 44 29. 00	38. 44 29. 00 7. 12		
14	North Carolina		10.00	10.00	· · · · · · · · · · · · · · · · · · ·	
15 16		Fairfield (a)	4. 50 5. 50			
17	Georgia	Augusta (a)	9. 00 i	9.00	·	•••••
18	Louisiana		28.75	18. 50	10. 25 .	· · · · · · · · · · · · · · · · · · ·
19 20		New Basin (a) Company's (a)	6, 50 22, 25	6. 50 12. 00	10.25	
21	Texas	Galveston and Brazos (a)	38. 00	38. 00		
22	Michigan		3. 14	3.14		
23 24		St. Mary Falls (a)	1. 02 2. 12	1. 02 2. 12		

AND EXPENDITURES IN 1880 AND 1889.

SUMMARY.

	18	389		. 1880					
Gross earnings.	Expenses.	Net earnings.	Net loss.	Gross earnings.	Expenses.	Net earnings.	Net loss.		
\$4, 089, 132, 26	\$2 , 1 22 , 376. 00	\$1, 966, 756. 26		\$4, 302, 185. 00	\$ 2, 875, 335. 00	\$1, 426, 850. 00		1	
4, 089, 132. 26	2, 122, 376. 00	1, 966, 756. 26		3, 202, 148. u0 1, 100, 037. 00	1, 977, 636. 00 897. 699, 00	1, 224, 512. 00 202, 338, 00		. 3	
• • • • • • • • • • • • • • • • • • • •		<u> </u>			••••••	•••••		1	

A.—CANALS REPORTING INCOME AND EXPENDITURES IN 1880 AND 1889.

		18	389			. 18	880		
Gr	oss earnings.	Expenses.	Net earnings.	Net loss.	Gross earnings.	Expenses.	Net earnings.	Net loss.	
	\$4, 089, 132. 26	\$2, 122, 376, 00	\$1, 966, 756. 26		\$3, 202, 148. 00	\$1, 977, 636. 00	\$1, 224, 512. 00		. :
	916, 884. 83	1, 037, 824. 33		\$120, 939. 50	1, 176, 111. 00	012, 061. 00	264, 050. 00	·	
}	837, 297, 86	786, 257. 86	71, 040. 00	101.070.50	1, 136, 611. 00	727, 789, 00	408, 822. 00	A144 570 00	
	59, 586. 97 335, 239. 81	251, 566. 47 301, 635. 25	33, 604. 56	191, 979. 50	39, 500. 00 215, 677. 00	184, 272. 00 160, 418. 00	55, 259. 00	\$144,772.00	
	2, 430, 829. 04	476, 169. 34	1, 954, 659. 70	!	1, 298, 017. 00	505, 924. 00	· 792, 093. 00		-
	172. 342. 19 18, 189. 30 102, 010. 38 2, 138, 287. 17	228, 808, 99 88, 897, 55 43, 309, 18 115, 153, 62	58, 701. 20 2, 023, 133. 55	56, 466. 80 70, 708. 25	368, 770, 00 55, 260, 00 573, 133, 00 300, 854, 00	177, 826, 00 35, 979, 00 169, 952, 00 122, 167, 00	190, 944, 00 19, 281, 00 403, 181, 00 178, 687, 00		1
	189, 117. 61	51, 786. 38	137, 331. 23		201, 783. 00	62, 245. 00	139, 538. 00		1
• • • • •	5, 000. 00	5, 500. 00		500.00	7, 300. 00	6, 980. 00	820.00		1
	110, 987. 46	163, 981. 75		52 , 994. 2 9	195, 655. 00	204, 407. 00		8, 752. CO	1
}	110, 987. 46	163, 981. 75		52, 994. 29	195, 655. 00	204, 407. 00		8, 752. 00	1
,	101, 073. 51	85, 478. 95	15, 594, 56		107, 605. 00	125, 601. 00		17, 906. 0)	

B.—CANALS REPORTING INCOME AND EXPENDITURES IN 1880 OR 1889.

	1, 100, 037	897, 639	202, 338	!	1
	63, 067	187, 913		124, 846	2
	51, 267	136, 520 51, 393		85, 253 39, 593	3 4
	11, 800 419, 431	51, 393 331, 344	88, 387	39, 593	5
	27, 072	22, 515	4, 557		G
	26, 997	22, 496 19	4, 501 56		7 8
	372, 616	227, 277	145, 339		9
	104, 048	71, 632	32, 416		10
	86, 138 13, 524	56, 432 6, 000	29, 706 7, 524		11 12 13
	4, 386 8, 000	9, 200 3, 000	5, 000	4,814	13
	8,000	3,000	5,000		15
					16
	20, 909 27, 840	7, 382 13, 650	. 13,527		17
	20, 340	13, 650	6, 690		19
······;	7, 500 4, 535	3, 454	7, 500 1, 081		20 21
1	52, 519	29, 532	22, 987		22
	44, 743 7, 776	23, 437 6, 095	21, 306 1, 681		23 24
	7, 770 		1,001		

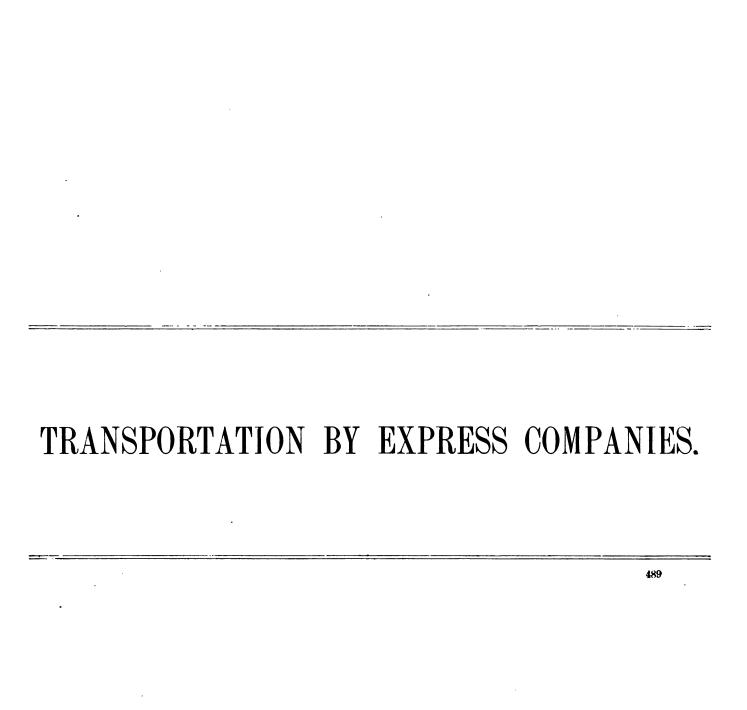
b Rendered useless in 1889 by the floods of June of that year.

TABLE S.—COMPARATIVE STATISTICS—INCOME AND EXPENDITURES IN 1880 AND 1889—Continued.

C.—CANALS NOT REPORTING INCOME AND EXPENDITURES IN EITHER 1880 OR 1889.

STATES.		MILES (INCLUDING SLACEWATER).						
	Canals.	1889	1880	Increase.	Decrease.			
Total		63. 26	35. 77	27. 49				
New Jersey	Penn's Neck (a)	2. 02	2. 02					
North Carolina	Newberne and Beaufort (a)	3.00	3.00		,			
Florida	Santa Fe (a)	10.50	10. 50	 	! !			
Louisiana		9. 50	9. 50		, 			
	Old Basin (Carondelet) (a) Harvey's (a) Secolas (Tagliaferro) (a)	2. 00 5. 75 1. 75	2. 00 5. 75 1. 75					
Oregon	Willamette Transportation and Lock Company (a)	0.75	0.75					
Michigau		6. 19		6. 19	: 			
	Keweenaw Bay and Portage Lake (a)	5. 00 1. 19		5. 00 1. 19				
Iowa	Des Moines Rapids (a)	7. 60	7. 60	! 	 			
Alabama	Coosa (α)	5. 30		5. 30				
Kentucky	Louisville and Portland (a)	2. 40	2.40	 	! 			
Тепиеззее	,	16.00		16.00	ļ			
	Muscle Shoals (a) Elk River Shoals (a)	14.50 1.50		14.50 1.50				

a Ship capal.



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TRANSPORTATION BY EXPRESS COMPANIES.

BY THOMAS J. VIVIAN.

The present is the first census report made upon the business of the express companies of the country. It was the intent to include the express business in the Tenth Census, but the law was found inadequate in the circumstances, as explained in volume IV, of the report of the census of 1880.

The report for 1890 is the result of more recent legislation and the hearty co-operation of the express companies.

EXISTING AND MERGED COMPANIES.

The express companies from which reports were sought were those which shipped freight over some railroad, stage, or water line of the United States, in charge of their agents or messengers, and whose business was not confined to one town. From those express companies which were in existence during the years 1880 to 1889, inclusive, material was gathered for a table showing the mileage operated by them during that period.

In the following parallel columns there are given the lists of those companies which were in operation during the year ending June 30, 1890, and those companies which, during the decade 1880-1889, inclusive, were either discontinued or absorbed into other similar carrying organizations, the facts relative to their discontinuance being given in Table 1:

THE EIGHTEEN EXPRESS COMPANIES OPERATING IN THE UNITED STATES DURING THE YEAR ENDING JUNE 30, 1890.

Adams Express Company. American Express Company. Camden and Atlantic Express Company. Canadian Express Company. Cincinnati, Georgetown and Portsmouth Express Company. Denver and Rio Grande Express. Dominion Express Company. Earle & Prew's Express. Long Island Express Company. National Express Company. New England Despatch Express Company. New York and Boston Despatch Express Company. Northern Pacific Express Company. Pacific Express Company. Southern Express Company. United States Express Company. Wells, Fargo & Co.'s Express.

West Jersey Express Company.

THE THIRTEEN EXPRESS COMPANIES WHICH LAISED DURING THE DECADE 1880-1889, INCLUSIVE.

Baltimore and Ohio Express Company.

Delaware, Lackawanna and Western Express Company.

Erie and New England Express Company.

Erie Express Company.

Louisville, New Albany and Chicago Express Company.

Ohio and Mississippi Express Company.

Philadelphia and Reading Express Company.

Pittsburg and Western Express Company.

St. Louis, Iron Mountain and Southern Express Company.

Texas Express Company.

Union Express Company.

United States and Canada Express Company.

Westcott's Express Company.

Two foreign companies, the Canadian and Dominion, operate over mileage in the United States. The Dominion Express Company courteously furnished all the information asked for, but the Canadian Express Company furnished only a statement of the mileage operated in the United States during the years 1880-1889, inclusive.

As will be seen by their titles, many of the discontinued companies were operated by the railroads whose names they bear, the attempt to combine the express business with their original occupation as common carriers having been made at one time or another by most of the large railroad organizations, while the other companies have lost their corporate identity through the processes of consolidation. These processes of consolidation have been almost as active among express companies as among railroads. Some of the surviving concerns represent the consolidation of dozens of earlier companies.

PLAN OF THE TABLES.

For the presentation of the statistical results of the investigation by the Eleventh Census into the express industry, the following 6 tables have been prepared:

Table 1.—Mileage operated by express companies during the years 1880-1890, inclusive.

Table 2.—Mileage operated by express companies on June 30, 1890, given by routes.

Table 3.—Equipment and fixtures of express companies on June 30, 1890.

Table 4.—Employés of express companies on June 30, 1890.

Table 5.—Expenditures of express companies for the year ending June 30, 1890.

Table 6.—Business done by the express companies during the year ending June 30, 1890.

The data in all of these tables are presented in 3 parts, as follows:

Part 1.—By companies in each group.

Part 2.-By company totals.

Part 3.—By group totals.

In addition to these segregations all 3 parts of the first 2 tables are subdivided as follows:

A.-Mileage operated over railways.

B.-Mileage operated over water lines.

C.—Mileage operated over stage lines.

D.-Mileage operated over all lines.

GROUPINGS.

The groups are the same as those to which the assignment of railroad data has been made, the express companies having segregated their business done over the various railroad, water, and stage lines which are operated within these groups.

These groups, with the express companies which operate within them, are as follows:

Group I consists of Maine, New Hampshire, Vermont, Massachusetts, Rhode Island, and Connecticut. The express companies operating in this group during the years 1880-1890 were:

Adams Express Company.

American Express Company.

Canadian Express Company.

Dominion Express Company.

Earle & Prew's Express.

National Express Company.

New England Despatch Express Company.

New York and Boston Despatch Express Company.

United States and Canada Express Company. (a)

United States Express Company.

Group II consists of New Jersey, Delaware, Maryland, District of Columbia, and so much of New York, Pennsylvania, and West Virginia as lies east and north of a line from Buffalo, N. Y., to Salamanca, N. Y.; thence following the county lines to Pittsburg, Pa.; thence following the Ohio river to Parkersburg, W. Va.; thence across West Virginia to the south end of the west boundary of Maryland. The express companies operating in this group during the years 1880–1890 were:

Adams Express Company.

American Express Company.

Baltimore and Ohio Express Company. (a)

('amden and Atlantic Express Company.

Delaware, Lackawanna and Western Express Company. (a)

Erie Express Company. (a)

Erie and New England Express Company. (a)

Long Island Express Company.

National Express Company.

Philadelphia and Reading Express Company. (a)

Union Express Company. (a)

United States Express Company.

United States and Canada Express Company. (a)

Wells, Fargo & Co.'s Express.

Westcott's Express Company. (a)

West Jersey Express Company.

Group III consists of Ohio and Indiana, the southern peninsula of Michigan, and so much of Pennsylvania and New York as lies west of a line from Pittsburg, Pa., to Buffalo, N. Y., via Salamanca N. Y. The express companies operating in this group at some time during the years 1880–1890 were:

Adams Express Company.

American Express Company.

Baltimore and Ohio Express Company. (a)

Canadian Express Company.

Cincinnati, Georgetown and Portsmouth Express Company.

Erie Express Company. (a)

Louisville, New Albany and Chicago Express Company. (a)

Ohio and Mississippi Express Company. (a)

Pacific Express Company.

Pittsburg and Western Express Company. (a)

Union Express Company. (a)

United States Express Company.

Wells, Fargo & Co.'s Express.

Group IV consists of Virginia, West Virginia (exclusive of that portion in Group II), North Carolina, and South Carolina. The express companies operating in this group during the years 1880-1890 were:

Adams Express Company.

Baltimore and Ohio Express Company. (a)
Southern Express Company.
United States Express Company.

Group V consists of Kentucky, Tennessee, Mississippi, Alabama, Georgia, and Florida. The express companies operating in this group during the years 1880-1890 were:

Adams Express Company.

Baltimore and Ohio Express Company. (a)

Pacific Express Company.

Southern Express Company.

United States Express Company.

Group VI consists of Illinois, Wisconsin, northern peninsula of Michigan, Minnesota, Iowa, North Dakota and South Dakota east of the Missouri river, and Missouri north of the Missouri river. The express companies operating in this group during the years 1880-1890 were:

Adams Express Company.
American Express Company.
Baltimore and Ohio Express Company. (a)
Northern Pacific Express Company.
Ohio and Mississippi Express Company. (a)
Pacific Express Company.
Southern Express Company.
United States Express Company.
Wells, Fargo & Co.'s Express.

Group VII consists of Montana, Wyoming, Nebraska, that portion of North Dakota and South Dakota west of the Missouri river, and that portion of Colorado north of the latitude of Denver. The express companies operating in this group during the years 1880–1890 were:

American Express Company. Northern Pacific Express Company. Pacific Express Company. United States Express Company. (a) Wells, Fargo & Co.'s Express.

Group VIII consists of that part of Missouri south of the Missouri river, Arkansas, Kansas, Indian territory, Oklahoma, that part of Colorado south of the latitude of Denver, that portion of New Mexico north of Santa Fe, and that portion of Texas north of a line from Santa Fe to the southwest corner of Indian territory. The express companies operating in this group during the years 1880–1890 were:

Adams Express Company.

American Express Company. (a)

Denver and Rio Grande Express.

Pacific Express Company.

St. Louis, Iron Mountain and Southern Express Company. (a)

Southern Express Company.

Texas Express Company. (a)

United States Express Company.

Wells, Fargo & Co.'s Express.

Group IX consists of Louisiana, Texas (except that portion allotted to Group VIII), and that portion of the territory of New Mexico lying south of a line from Santa Fe eastward to the southwest corner of Indian territory and east of a line from Santa Fe to El Paso. The express companies operating in this group during the years 1880–1890 were:

Baltimore and Ohio Express Company. (a)
Pacific Express Company.
Southern Express Company.
Texas Express Company. (a)
United States Express Company.
Wells, Fargo & Co.'s Express.

Group X consists of California, Oregon, Nevada, Washington, Idaho, Arizona, Utah, and that portion of New Mexico lying west of a line from Santa Fe to El Paso and south of a line from Santa Fe to the northwestern corner of the territory. The express companies operating in this group during the years 1880-1890 were:

Adams Express Company. (a)
Denver and Rio Grande Express.
Northern Pacific Express Company.
Pacific Express Company.
Wells, Fargo & Co.'s Express.

WHAT THE TABLES SHOW.

Tables 1 and 2 deal with the question of mileage operated by express companies, that is, the number of miles of railroads, water lines, and stage lines over which express companies transport goods. Table 1, "Mileage operated by express companies during the years 1880–1890, inclusive", presents these figures for the 11 years 1880 to 1890, inclusive, and gives details for each of the express companies, the figures in gross being set forth in the following summary:

Table A.—SUMMARY SHOWING THE MILEAGE OPERATED BY EXPRESS COMPANIES OVER RAILROADS, WATER LINES, AND STAGE LINES FROM 1880 TO 1890, INCLUSIVE. (a)

YEARS.	YEARS. Total.		Over water lines.	Over stage lines.	
1880	102, 816. 75	90, 649. 75	7, 036. 00	5, 131. 00	
1881	115, 236, 28	102, 614. 28	7, 096. 00	5, 526. 00	
1882	126, 393, 01	114, 129. 01	7, 366. 00	4, 898. 00	
1883	141, 146. 88	128, 688, 38	8, 393, 50	4, 065. 00	
1884	141, 473. 19	128, 801, 69	8, 376. 50	4, 295. 00	
1885	145, 179. 64	131, 557. 14	8, 538. 50	5, 084. 00	
1886	152, 259, 33	139, 202. 83	8, 689. 50	4, 367. 00	
1887	163, 760. 66	151, 271. 16	8, 724. 50	3, 765. 00	
1888	167, 628.00	154, 406. 50	9, 014. 50	4, 207. 00	
1889	169, 857. 16	157, 897. 66	8, 207. 50	3, 752. 00	
1890	174, 534. 51	160, 597, 51	10, 882. 00	3, 055, 00	

a The railroad mileage prior to 1830 and the water lines include an undetermined amount of Canadian mileage. The railroad mileage for 1890 Includes 475 18 miles of lines in Canada.

The salient facts of this summary are the steady increase of railroad mileage from year to year, the fluctuations of mileage operated over water lines, and the decrease of that operated over stage lines. In 1880, as will be seen, the mileage operated by express companies over railroads was 90,649.75, while in 1890 it was 160,597.51, including Canadian mileage, an increase of 69,947.76 miles for 10 years. The mileage operated over water lines also shows an increase, but it is by no means as large, the increase for 10 years being 3,846 miles, or 54.66 per cent. In the year of greatest increase the mileage of water lines used by express companies was 10,882 for 1890 against 8,207.50 for 1889, an increase of 2,674.50. This increase was largely through the operation, for the first time by the American Express Company in 1890, of steamship companies plying between Boston and Nova Scotia and of others plying between Detroit, Grand Haven, and Milwaukee; through the operation by the United States Express Company of the Choptank Steamboat Company and a line from Salem to Philadelphia, and an increased operation on the Ohio river by the Adams Express Company.

VARIATIONS OF MILEAGE.

The variations in the account of operated mileage during the 11 years, as given by groups, are quite pronounced and are due to a variety of causes. In the first place it must be understood that the mileage is that operated by express companies and does not stand as the mileage of the various transportation lines. Fluctuations therefore are those of mileage operated by express companies over certain lines and not of the mileage of the transportation lines themselves, and while the routes operated by the express companies as a rule are well defined, changes are being constantly made in the contracts, not only with the transportation lines but also among express companies themselves. In the next place, it will be observed that while there are fluctuations in the mileage operated in the various groups, the total mileage operated over railways by express companies has gradually increased from 1880 to 1890, inclusive. The only group in which this steadiness of increase has been maintained is Group V, while the other 2 groups in which this increase has been most nearly maintained are Groups VIII and IX. The fact that but 8 groups are represented in that part of the summary dealing with the express mileage operated over water lines is not due to the absence of waterways, but simply to the fact that certain companies. have found it expedient or necessary to employ other transportation lines than waterways. The drop in 1890, Group V, is due to the abandonment by the Adams Express Company of its river line between Evansville, Paducah, and Cairo. The small mileage drop in Groups VII and VIII was that of ferries not used in 1890, while the drop in the 1889 mileage of Group X is due to the Pacific Express Company's abandonment of 1,135 miles of the Oregon Railway and Navigation Company's water route.

Another point to be mentioned is the extremely large mileage operated over stage lines in Group X as compared with that operated over similar lines in other groups. No better indication is needed than that furnished by these figures of the great extent of country in this group which is still unfurnished with close railroad communication. Even in this group, however, the mileage operated over stage lines is diminishing, and the mileage so operated in 1890 is but little more than half of that operated in 1880.

In Table 2, "Mileage operated by express companies on June 30, 1890, given by routes", the mileage of the census year is analyzed to the extent of the railroad and water lines over which the express companies operated in each group. The railroads quoted are the controlling or operating lines only. The 475.18 miles of Canadian mileage reported in Groups I and III were operated by certain express companies on their international routes for which it was impossible to effect any segregation of returns.

DUPLICATION OF MILEAGE.

One thing remains to be spoken of in connection with the mileage account, that is, the column of duplications or duplicated mileage, which appears in Table 2. These duplications are due to two causes: (1) arrangements by which one express company operating a certain line of railroad agrees to allow some other express company to ship through bills of lading over that line, reserving to itself, however, the exclusive right of local business; (2) contracts between express companies to have the common use of certain portions of railroad lines on a pro ratabasis. The duplicated mileage amounted altogether to 5,924.31 miles, so that although the mileage operated on June 30, 1890, by all the express companies over all railroads amounted to 160,597.51 miles, the net railroad mileage operated by these companies amounted only to 154,673.20 miles. The gross, duplicated, and net mileages by groups are shown in the following table:

TABLE B.—SUMMARY SHOWING THE MILEAGE OPERATED OVER RAILROADS BY EXPRESS COMPANIES ON JUNE 30, 1890, THE DUPLICATED MILEAGE, AND THE NET MILEAGE.

GROUPS.	Gross mileage operated by express compa- uies over rail- roads.			
Total	a160, 597. 51	5, 924. 31	154, 673. 20	
I	b8, 815. 23	1, 953. 90	6, 861. 33	
п	18, 068, 78	646. 91	17, 421. 87	
III	c21, 762, 50	1, 258. 05	20, 504. 45	
IV	8, 525. 50	51.57	8, 473. 93	
v	16, 524. 48	1, 060. 84	15, 463. 64	
VI	37, 848. 42	745. 36	37, 103. 06	
VII	8, 785. 28		8, 785. 28	
VIII	20, 154, 54	133. 68	20, 000. 88	
IX	9, 088. 96	54.00	9, 034. 96	
x	11, 023. 82		11, 023. 82	

EQUIPMENT AND FIXTURES.

The following summary, which is compiled from the figures of Table 3, presents a statement of the equipment and fixtures of each company making report, together with the value placed by the company on these fixtures:

TABLE C.—SUMMARY SHOWING EQUIPMENT AND FIXTURES OF EXPRESS COMPANIES IN THE UNITED STATES ON JUNE 30, 1890.

ITEMS.	Number.	Value.		
Total value of equipment and fixtures.	,			
Cars		86, 416. 39		
Office safes	7, 670	582, 525. 03		
Messengers' safes	6, 910	125, 816, 70		
Messengers' trunks	5, 690	62, 624. 1		
Horses	8, 291	1, 464, 476. 30		
Wagons	G, 008	1, 192, 286. 44		
Sleighs	1, 439	65, 595. 91		
Office fixtures		1, 146, 469. 7		
Stable equipment (including harness)		347, 834. 48		

The significant fact suggested by these figures is that the express business is one which depends upon organization and continuous activity rather than upon an expensive plant.

EMPLOYÉS.

A summary of the information contained in Table 4, "Employes of express companies on June 30, 1890", is as follows:

TABLE D.—SUMMARY SHOWING THE NUMBER OF EMPLOYES OF ALL GRADES IN THE SERVICE OF EXPRESS COMPANIES IN THE UNITED STATES ON JUNE 30, 1890.

Total number of employés	45, 718
General officers	86
Superintendents and route agents	320
General office clerks	1, 377
Agents	21,065
Assistants to agents	7, 952
Messengers	4, 130
Baggage men employed as messengers.	1, 405
Drivers of wagons	4,877
All others	4,506

The express business is partly carried on by the employés of the railway companies. Thus the number of baggage men employed as messengers is 1,405 as against 4,130 messengers employed wholly by the express companies. The 21,065 agents returned are entirely within the employ of the companies, as are the superintendents, route agents, office clerks, and drivers.

EXPENDITURES.

The figures given in Table 5, "Expenditures of express companies for the year ending June 30, 1890", include only partial entries for the 4 following railroad express companies: Camden and Atlantic; Cincinnati, Georgetown and Portsmouth; Long Island, and West Jersey, these companies being departments of the railroad corporations owning them and whose names they bear, and having no separately kept expense account. The summarized figures of Table 5 are as follows:

TABLE E.—SUMMARY SHOWING THE EXPENDITURES OF EXPRESS COMPANIES IN THE UNITED STATES FOR THE YEAR ENDING JUNE 30, 1890.

Operating expenses:	
Paid to railways	\$19, 327, 280. 49
Paid to water lines	173, 222. 13
Paid to stage lines	60, 679. 38
Paid for salaries and wages	16, 176, 097. 55
Paid for local expenses and repairs	
Paid for general expenses	826, 715. 50
Paid for other expenses of operation	
Other payments:	\$42, 413, 704. 7
Taxes	171, 370. 31
Dividends (8 companies reporting)	3, 198, 048. 31
•	3, 369, 418. 6
Total expenditures	45, 783, 123. 3

It will be seen from this summary that the two great items of expenditure are the amount paid to railways, \$19,327,280.49, and that paid out as salaries and wages, \$16,176,097.55. In fact, these two items constitute over 80 per cent of the entire expense of operation. During the census year the dividends paid by the 8 companies reporting such payments amounted to \$3,198,048.31.

OPERATIONS.

Table 6, "Business done by express companies during the year ending June 30, 1890", is summarized as follows:

TABLE F.—SUMMARY SHOWING THE AMOUNT OF BUSINESS DONE BY EXPRESS COMPANIES IN THE UNITED STATES DURING THE YEAR ENDING JUNE 30, 1890.

Number of freight waybills issued	44, 475, 528
Number of packages carried on freight waybills	98, 118, 430
Weight of packages carried on freight waybills in tons	1, 646, 273
Number of money waybills issued	11, 614, 676
Number of packages carried on money waybils	17, 258, 682
Number of money orders issued	4, 598, 567

Some idea of the minutiæ of the express business may be gathered from the statement here made that the number of packages carried on freight waybills amounted to 98,118,430, for which were issued no fewer than 44,475,528 waybills; and that for the transportation of 17,258,682 money packages no fewer than 11,614,676 waybills were issued. The weight of the packages carried on money waybills is not given, but that of packages carried on the freight waybills was, it will be seen, only 1,646,273 tons, an amount less than that carried by any small and reasonably busy railroad. The money waybills issued include consignments of jewelry, currency, bonds, coupons, and coin. The number of money orders issued, 4,598,567, indicates the condition of a comparatively new extension of the express business.

CONCENTRATION OF CONTROL.

An inspection of the tables will show that in the express business the great bulk is controlled by the following 6 companies: American, Adams, United States, Wells, Fargo & Co.'s, Southern, and Pacific. The standing of these 6 companies is such that in no department of the returns, whether of mileage, equipment, finance, or operations, do they in the aggregate fall below 90 per cent of the entire returns. A comparison between the mileage figures of 1880 and 1890 will show how very decided has been the growth of the controlling power of the few leading companies. In 1880, out of a total of 102,816.75 miles the 6 companies operated 84,653.60, or 82.33 per cent of the whole, but in 1890, out of a total of 174,534.51 the 6 companies operated 161,657, or 92.62 per cent of the whole. These facts are shown in the following summary:

TABLE G.—STATEMENT SHOWING THE MILEAGE OPERATED BY 6 EXPRESS COMPANIES IN 1880 AND 1890, AS. COMPARED WITH THAT OPERATED BY ALL OTHER EXPRESS COMPANIES IN THOSE YEARS.

·	18	80	1890			
ITEMS.	The 6 leading companies.	The 20 other companies.	The 6 leading companies.	The 11 other companies.		
Mileage	84, 653. 60	18, 163. 15	161, 657. 00	12, 877. 51		
Percentage	82.33	17. 67	92. 62	7.38		

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OWNERSHIP AND ORGANIZATION.

It appears that the express business does not date any further back than 1839, while its earliest date as to an organized undertaking is 1850. This year, it further appears, began the period of greatest activity in express organization, the American Express Company being formed into a joint stock company March, 1850, followed by a similar organization on the part of the United States Express Company April 22, 1854, and by the Adams Express Company July 1, 1854. The record of ownership and organization of the express companies whose statistics appear in this report will be found in the following summary:

TABLE H.—STATEMENT OF THE OWNERSHIP AND ORGANIZATION OF EXPRESS COMPANIES OPERATING IN THE UNITED STATES JUNE 30, 1890.

COMPANIES.	Joint stock company or corporation.		organiza- charter.	Empowering state.	Number of stockhold- ers or share- holders.	Location of principal office.
Adams Express Company	Joint stock company	July	1, 1854	New York	2, 672	New York, N. Y.
American Express Company	do	Mar.	18, 1850	do	3, 766	Do.
Camden and Atlantic Express Company (a).						
Cincinnati, Georgetown and Portsmouth Express Company. (b)	••••••	j	•••••			
Denver and Rio Grande Express (c)						•
Dominion Express Company	Corporation		1873	Canada	20	Montreal, Canada.
Earle & Prew's Express	Joint stock company	Mar.	1, 1868	Rhode Island	2	Providence, R. I.
Long Island Express Company (d)		ļ				
National Express Company	Joint stock company	May	1, 1853	New York	70	New York, N. Y.
New England Despatch Express Company	Corporation	Aug.	1, 1885	Massachusetts	10	Boston, Mass.
New York and Boston Despatch Express Company.	do	June	16, 1873	do	1	Do.
Northern Pacific Express Company	do	Aug.	16, 1883	Minnesota	7	St. Paul, Minn.
Pacific Express Company	do	Nov.	1, 1879	Nebraska	11	Omaha, Neb.
Southern Express Company	do	Dec.	21, 1886	Georgia	17	Augusta, Ga.
United States Express Company	Joint stock company	Apr.	22, 1854	New York	(e)	New York, N. Y.
Wells, Fargo & Co.'s Express	Corporation	Feb.	5, 18 66	Colorado	1,886	San Francisco, Cal.; New York, N. Y.
West Jersey Express Company (f)						

a Department of the Camden and Atlantic railroad.

b Department of the Cincinnati, Georgetown and Portsmouth railroad.

c Department of the Denver and Rio Grande railroad.

d Department of the Long Island railroad.

e Not reported.

f Department of the West Jersey railroad.

TABLE 1.-MILEAGE OPERATED BY EXPRESS COMPANIES OVER RAILWAYS, WATER LINES, AND STAGE LINES DURING THE YEARS 1880-1890, INCLUSIVE.

(Railroad mileage prior to 1890 and water lines include an undetermined amount of Canadian mileage. Mileage for 1890 includes 475.18 miles of lines in Canada.]

Part 1.-BY COMPANIES IN EACH GROUP.

GROUP I.

A .- MILEAGE OPERATED OVER RAILWAYS.

COMPANIES.	1880	1881	1882	1888	1884	1885	1886	1887	1888	1889	1890
Total mileage operated over rail- ways in Group I.	7, 176. 97	7, 281. 40	7, 827. 78	8, 979. 37	7, 771. 50	7, 737. 90	7, 673. 94	7, 676. 41	7, 650. 37	8, 186. 74	8, 815. 2
Adams Express CompanyAmerican Express CompanyCanadian Express Company	1, 334, 42 2, 034, 88 178, 44	1, 424. 86 2, 048. 87 178, 44	1, 428, 46 2, 416, 38 178, 44	1, 429. 91 3, 521. 47 178. 44	1, 449, 33 3, 903, 50 178, 44	1, 439, 45 3, 856, 79 178, 44	1, 442, 15 3, 790, 13 178, 44	1, 442. 67 3, 792. 08 178. 44	1, 619. 33 3, 561. 38 178. 44	1, 617, 89 3, 655, 19 178, 44	1, 464. 0 4, 997. 0 (a)
Dominion Express Company Earle & Prew's Express	201.00	201.00	201.00	245.00	20. 00 245. 00	20. 00 245. 00	20. 00 245. 00	20. 00 245. 00	20.00 245.00	252. 00 245. 00	252. 0 146. 0
National Express Company New England Despatch Express Company New York and Boston Despatch Express	266. 51 1, 167. 00 251. 00	266. 51 1, 167. 00 251. 00	314. 23 1, 167. 00 879. 00	314. 23 1, 167. 00 379. 00	457. 23 1, 167. 00 351. 00	457. 22 1, 167. 00 374. 00	457. 22 1, 167. 00 374. 00	457. 22 1, 167. 00 2 374. 00	457. 22 1, 167. 00 374. 00	457. 22 1, 167. 00 374. 00	430. (887. (199. 2
Company. United States Express Company juited States and Canada Express Company pany.	1, 743. 72	1, 743. 72	1, 743. 27	1, 744. 32	(b)			•••••••	28.00	240.00	240.
	<u> </u>	B.—MILE	AGE OPE	RATED O	VER WAT	ER LINE	8.		:		
			1								
Total mileage operated over water lines in Group I.	3, 195. 00	3, 255, 00	3, 545. 00	3, 392. 00	3, 352. 00	3, 417. 00	8, 417. 00	8, 343. 00	3, 594. 00	3, 864. 00	5, 026. 0
Adams Express Company American Express Company Sarle & Prew's Express	153.00 1,184.00 218.00	153. 00 1, 244. 00 218. 00	153.00 1,534.00 218.00	125. 00 1, 409. 00 218. 00	125. 00 1, 369. 00 218. 00	160.00 1,399.00 218.00	160.00 1,399.00 218.00	280. 00 1, 205. 00 218. 00	280. 00 1, 205. 00 218, 00	280.00 1,475.00 218.00	292. 2, 275. 218.
New England Despatch Express Company New York and Boston Despatch Express	1, 407. 00 233. 00	1, 407. 00 233. 00	1,407.00 233.00	1, 407, 00 233, 00	1, 407. 00 233. 00	1, 407. 00 233. 00	1, 407. 00 233. 00	1, 407. 00 233. 00	1, 407, 00 233, 00	1, 407. 00 233. 00	1, 407. (233. (
Company. United States Express Company									251.00	251.00	601. 0
	•	C.—MILI	EAGE OPE	RATED O	VER STA	GE LINES					
Total mileage operated over stage lines in Group I.	69.00	69. 00	69.00	25. 00	25. 00					30.00	90.0
Adams Express CompanyAmerican Express Company	44. 00 25. 00	44. 00 25. 00	44. 00 25. 00	25. 00	25. 00					30.00	90. (
		DMI	LEAGE OF	PERATED	OVER AL	L LINES.		·			
Total express mileage in Group I	10, 440. 97	10, 605. 40	11, 441. 78	12, 396. 37	11, 148. 50	11, 154. 90	11, 090. 94	11, 019. 41	11, 244. 37	12, 080. 74	13, 931. 2
dams Express Company American Express Company Janadian Express Company Jominion Express Company	1, 531, 42 3, 243, 88 178, 44	1, 621. 86 3, 317. 87 178. 44	1, 625. 46 3, 975. 38 178. 44	1, 554. 91 4, 955. 47 178. 44	1, 574. 33 5, 297. 50 178. 44 20. 00	1, 599. 45 5, 255. 79 178. 44 20. 00	1, 602. 15 5, 189. 13 178. 44 20. 00	1, 722. 67 4, 997. 08 178. 44 20. 00	1, 899. 33 4, 766. 38 178. 44 20. 00	1, 897. 89 5, 160. 19 178. 44 252. 00	1, 756. 7, 362. (a) 252.
Earle & Prew's Express	419, 00	419.00	419.00	463. 00	463.00	463.00	463. 00	468. 00	463.00	463. 00	364.
	266, 51	. 266. 51	314. 23 2. 574. 00	314. 23 2. 574. 00	457. 23 2, 574. 00	457. 22 2, 574. 00	457. 2 2 2, 574. 00	457. 22 2, 574. 00	457. 22 2, 574. 00	457. 22 2, 574. 00	430. 294. 632.
National Express Company New England Despatch Express Company New York and Boston Despatch Express Company.		2, 574. 00 484. 00	612.00	612.00	584.00	607. 00	607.00	607.00	607.00	607.00	0.32.

a No information furnished for 1890.

GROUP II.

Total mileage operated over rail- ways in Group II.	13, 491. 23	14, 053. 77	15, 373. 55	17, 494. 37	16, 398. 09	16, 904. 34	19, 286, 20	19, 653. 59	17, 957. 48	18, 686. 96	18, 068, 78
Adams Express Company	. 2, 708. 19	4, 234, 79 2, 866, 88 897, 15	4, 520, 87 3, 087, 59 939, 25	4, 981, 35 4, 208, 44 956, 25	5, 273, 33 3, 548, 72 973, 75	5, 604. 21 3, 564. 62 984. 15	5, 751, 77 3, 235, 36 1, 101, 75	6, 947, 47 3, 860, 20 1, 129, 35	3, 927, 72	7, 073. 29 3, 933. 86	6, 082. 00 4, 568. 00
Camden and Atlantic Express Company Delaware, Lackawanna and Western Ex- press Company.	. 67. 79	73, 50 925, 52	73. 50 1, 065. 92	66. 76 1, 021. 87	66. 76 1, 021. 87	79. 27 1, 021. 50	79. 27 1, 057. 75	79. 27 (b)	79. 93	81. 17	78. 93
Erie Express Company Erie and New England Express Company			206. 27	206. 27	(d)	955 01	1, 385. 29	1, 399. 33	(c)	200.04	
Long Island Express Company National Express Company Philadelphia and Reading Express Com-	. 884.18	884. 18 1, 118. 00	903. 56 1, 118. 00	354, 12 1, 689, 66 1, 167, 00	354. 12 1. 631. 83 1. 263. 00	1,659.28	356, 59 1, 690, 72 1, 383, 00		356. 81 1, 469. 62 (e)	360, 94 1, 556, 61	352, 79 955, 00
pany. Union Express Company United States Express Company	536.50 1,781.76	629, 50 1, 786, 62	684.55 2,093.72	697. 12 1, 933, 53		2, 028, 65	3, 022. 39	2, 850, 77	3, 368, 35	4 141 38	4, 239, 00
United States and Canada Express Com- pany.	118.00	118.00	118.00	(g)				1	·	'	
Wells, Fargo & Co.'s Express	. 320, 01	333. 72 185. 91	352. 67 209. 65	(h) 212.00	l 	223. 85	222. 31	233. 02	: 1, 297. 90 242. 98	1, 294. 15 245. 56	1, 548. 00 245. 06

b Business divided between the Adams and American Express Companies in 1884.

a Sold to United States Express Company in 1887.
b Sold to United States Express Company in 1886.
b Business transferred to Wells, Fargo & Co.'s Express in 1887.
d Business transferred to Wells, Fargo & Co.'s Express in 1883.

e Service turned over to United States Express Company in 1887.
f Good will transferred to Adams Express Company in 1883.
g No operations in this group after 1883.
h Known as the Long Island Express Company after 1882.

TABLE 1.-MILEAGE OPERATED BY EXPRESS COMPANIES OVER RAILWAYS, WATER LINES, AND STAGE LINES DURING THE YEARS 1880-1890, INCLUSIVE—Continued.

Part 1.—BY COMPANIES IN EACH GROUP—Continued.

GROUP II-Continued.

B.-MILEAGE OPERATED OVER WATER LINES.

COMPANIES.	1880	1881	1882	1888	. 1884	1885	1886	1887	1888	1889	1890
Total mileage operated over water lines in Group II.	666.00	668.00	668. 00	673.00	696. 00	717. 00	793. 00	958. 00	983.00	958.00	1, 208.0
Adams Express Company American Express Company National Express Company United States Express Company	244. 00 231. 00	193.00 244.00 231.00	193. 00 244. 00 231. 00	193. 00 249. 00 231. 00	193. 00 272. 00 231. 00	193. 00 293. 00 231. 00	269. 00 293. 00 231. 00	369. 00 293. 00 231. 00 65. 00	394. 90 293. 00 231. 00 65. 00	394. 00 268. 00 231. 00 65. 00	399, 0 288, 0 231, 0 290, 0
		C.—MILE	EAGE OPE	RATED O	VER STA	GE LINES	3.				
Total mileage operated over stage lines in Group II.		· · · · · · · · · · · · · · · · · · ·			3.00	3.00	26.00	41.00	29. 00	17.00	3.0
American Express Company					3. 00	3.00	3. 00 23. 00	17. 00 24. 00	20, 00 9, 00	17. 00	3.0
	, - :	D M II	EAGE OP	ERATED	OVER AL	L LINES.	,				
Total express mileage in Group II.	14, 159. 28	14, 721, 77	16, 041. 55	18, 167. 37	17, 097. 09	17, 624. 34	20, 105. 20	20, 652, 59	18, 969. 48	19, 661. 96	19, 279. 78
Adams Express Company	4, 312, 80 2, 952, 19 859, 67 67, 79 818, 42	4, 427. 79 3, 110. 88 897. 15 73. 50 925. 52	4, 713. 87 3, 331. 59 939. 25 73. 50 1,065. 92	5, 174. 35 4, 457. 44 956. 25 66. 76 1, 021. 87	5, 468. 33 3, 823. 72 973. 75 66. 76 1, 021. 87	3, 860. 62 984. 15 79. 27	6, 020. 77 3, 531. 36 1, 101. 75 79. 27 1, 057. 75	7, 316, 47 4, 170, 20 1, 129, 35 79, 27 (b)	(a)	7, 467. 29 4, 218. 86 81. 17	6, 481.00 4, 859.00 78.93
Pula Prances Comments				•			1, 385. 29	1, 399. 33	(c)		
Erie Express Company								i			
Erie and New England Express Company. Long Island Express Company National Express Company		1, 115. 18	206. 27 1, 134. 56 1, 118. 00	206. 27 354. 12 1, 920. 66 1, 167. 00	(d) 354, 12 1, 862, 83 1, 263, 00	355, 81 1, 890, 28 1, 383, 00	356, 59 1, 944, 72 1, 383, 00	360. 38 1, 665. 80 1, 383. 00	356. 81 1, 709. 62 (e)	360. 94 1, 787. 61	352.79 1, 186.00
Brie and New England Express Company. Long Island Express Company. National Express Company. Philadelphia and Reading Express Company. Union Express Company. United States Express Company. United States and Canada Express Company.	1, 115. 18	1, 115. 18	1,134.56	354. 12 1, 920. 66	354. 12 1. 862. 83	1,890.28	1, 944, 72 1, 383, 00	1, 665. 80	1, 709. 62	1, 787. 61	1, 196.00
Brie and New England Express Company. Long Island Express Company. National Express Company. Philadelphia and Reading Express Company. Union Express Company. United States Express Company. United States and Canada Express Com-	1, 115. 18 1, 094. 00 536. 50 1, 781. 76	1, 115, 18 1, 118, 00 629, 50 1, 786, 62	1, 134, 56 1, 118, 00 684, 55 2, 093, 72	354. 12 1, 920. 66 1, 167. 00 697. 12 1, 933. 53	354. 12 1. 862. 83 1, 263. 00	1, 890. 28 1, 383. 00	1, 944, 72 1, 383, 00	1, 665. 80 1, 383. 00	1, 709. 62 (e)	1, 787. 61 4, 206. 38	1, 196.00

- a Sold to United States Express Company in 1887.
 b Sold to United States Express Company in 1886.
 c Business transferred to Wells, Fargo & Co.'s Express in 1887.
 d Business transferred to Wells, Fargo & Co.'s Express in 1883.
- e Service turned over to United States Express Company in 1887.
 f Good will transferred to Adams Express Company in 1883.
 g No operations in this group after 1883.
 h Known as the Long Island Express Company after 1882.

GROUP III.

Total mileage operated over rail- ways in Group III.	15, 133, 20	17, 107. 30	18, 533, 56	23, 982. 35	21, 158. 21	20, 619. 10	22, 274. 15	23, 718. 20	21, 378. 13	21, 811. 17	21, 762.50
Adams Express Company American Express Company Baltimore and Ohio Express Company Canadian Express Company Cincinnati, Georgetown and Portsmouth Express Company.	5, 772. 77	3, 271, 76 5, 871, 42 568, 54 59, 37 34, 80	3, 569, 65 5, 981, 38 568, 54 59, 37 34, 80	5, 052, 05 8, 743, 19 568, 54 59, 37 34, 80	4, 531, 40 8, 602, 17 1, 538, 44 59, 37 34, 80	4, 576. 16 8, 623. 56 1, 167. 68 59. 37 42. 00	5, 319. 27 8, 771. 46 1, 167. 68 59. 37 42. 00	5, 526, 56 8, 645, 96 1, 613, 63 59, 37 42, 00	5, 429. 74 8, 859. 99 (a) 59. 37 42. 00	9, 065. 60	
Erie Express Company	289. 4C	289. 40	377. 39	(d)			1, 240. 46	1, 242. 05	(e)		
Ohio and Mississippi Express Company Pacific Express Company	245. 44 353. 60	245. 44 746. 90	245. 44 692. 30	245. 44 685. 60	245. 49 763. 37	(e) 518.47	569.70	599. 50	599, 50	599. 50	479.00
Pittsburg and Western Express Company. Union Express Company	1.417.27	1, 540. 67	2, 085, 60	208. 87 2, 468. 81	288. 17 (g)	288. 17	340. 37	840.37	371.47	(S)	
United States Express Company	3, 896. 97	4, 479. 00	4, 919. 09	5, 915. 68	5, 09 5 . 00	5, 343. 69	4, 763. 84	5, 648. 76	4, 904. 01 1, 112. 05	4, 917. 04 1, 496. 18	5, 129, 75 1, 450, 00

. — · · · · · · · · · · · · · · · · · ·			1								
Total mileage operated over water	843, 00	843.00	823. 00	823.00	823.00	823.00	823. 00	801.00	801.00	884. 00	1, 046. 00
lines in Group III	== :-:	· ·									
Adams Express Company	608.00	608.00	608.00	608.00	608.00	608. 00 [†]	608.00	586.00	586.00	669. 00	746.00
American Express Company	235. 00	235. 00	215. 00	215. 00	215. 00	215. 00	215.00	215. 00	215.00	215. 00	300.00

a Sold to United States Express Company in 1887.
b No information furnished for 1890.
c Business transferred to Wells, Fargo & Co.'s Express in 1887.
d Express turned over to American Express Company in 1882.

 $[\]epsilon$ Operated by Adams Express Company since 1884. f Operated by Wells, Fargo & Co.'s Express since 1888. g Good will transferred to Adams Express Company in 1883.

TABLE 1.—MILEAGE OPERATED BY EXPRESS COMPANIES OVER RAILWAYS, WATER LINES, AND STAGE LINES DURING THE YEARS 1880-1890, INCLUSIVE—Continued.

Part 1.-BY COMPANIES IN EACH GROUP-Continued.

GROUP III—Continued.

C.-MILEAGE OPERATED OVER STAGE LINES.

COMPANIES.	1880	1881	1882	1888	1884	1885	1886	1887	1888	1889	1890
Total mileage operated over stage lines in Group III.	33.00	58. 00	60.00	70.00	55. 00	5 5. 00	27. 00	30.00	30.00	99.00	61.00
Adams Express Company	29.00	29. 00 29. 00	29. 00 31. 00	34. 00 36. 00	44. 00 11. 00	44. 00 11. 00	16. 00 11. 00	19. 00 11. 00	19. 00 11. 00	78. 00 21. 00	55, 00 6, 00
		D.—MI	LEAGE O	PERATED	OVER A	LL LINES.					
Total express mileage in Group III.	16, 009. 20	18, 008. 30	19, 416. 56	24, 875. 35	22, 036. 21	21, 497. 10	23, 124. 15	24, 549. 20	22, 209. 13	22, 794. 17	22, 869, 50
Adams Express Company	3, 146, 44 6, 011, 77 568, 54	3, 908. 76 6, 135. 42 568. 54	4, 206. 65 6, 227. 38 568, 54	5, 694, 05 8, 994, 19 568, 54	5, 183. 40 8, 828. 17 1, 538. 44	5, 228. 16 8, 849. 56 1, 167, 68	5, 943. 27 8, 997. 46 1, 167. 68	6, 131. 56 8, 871. 96 1, 613. 63	6, 034. 74 9, 085. 99	6, 378, 53 9, 301, 60	6, 190. 00 9, 578. 75
Canadian Express Company	59. 37 20. 40	59. 37 34. 80	59. 37 34. 80	59. 37	59. 37 34. 80	59. 37 42. 00	59. 37 42. 00	59. 37 42. 00	59.37 42.00	59. 37 42. 00	(b) 42.00
Krie Express Company	289. 40	289. 40	377.39	(d)			1, 240. 46	1, 242. 05	(e)		
Express Company. Ohio and Mississippi Express Company Pacific Express Company	245, 44 353, 60	245. 44 746. 90	245. 44 692. 30	245. 44 685. 60	245. 49 763. 37	(e) 518.47	569. 70	599. 50	599. 50	599. 50	479. 00
Pittsburg and Western Express Company. Union Express Company	1. 417. 27	1, 540, 67	2, 085, 60	208, 87 2, 468, 81	288. 17	288. 17	340. 37	340. 37	371.47	S	
United States Express Company		4, 479. 00	4, 919. 09	5, 915. 68	5, 095, 00	5, 343. 69	4, 763. 84	5, 648. 76	4, 904. 01 1, 112. 05	4, 917. 04 1, 496, 13	5, 129, 7; 1, 450, 0

- a Sold to United States Express Company in 1887.
 b No information furnished for 1890.
 c Business transferred to Wells, Fargo & Co.'s Express in 1887.
 d Express turned over to American Express Company in 1882.
- e Operated by Adams Express Company since 1884.
 f Operated by Wells, Fargo & Co.'s Express since 1888.
 g Good will transferred to Adams Express Company in 1883.

GROUP IV.

A .-- MILEAGE OPERATED OVER RAILWAYS.

Total mileage operated over rail- ways in Group IV.	4, 607. 55	4, 790. 75	5, 112. 45	5, 449. 27	5, 723. 24	5, 821. 32	6, 273. 47	7, 428. 25	7, 579. 84	7, 998. 13	8, 525. 50
Adams Express Company		990. 93 127. 28	1, 190. 93 127. 28	1, 190, 93 163, 50	1, 291. 70 163. 50	1, 291. 70 163. 50	1, 291. 70 163, 50	1, 459. 70 420. 38	1, 506. 90	1, 541. 20	.,
Southern Express Company	3, 530. 04	3, 672. 54		4, 094. 84	4, 268. 04	4, 366. 12	4, 818. 27	4, 982. 79 565. 38	(a) 5, 519. 56 553. 38	5, 903. 80 553. 13	6, 435. 00 540. 00
		D.—MII	EAGE OP	ERATED	OVER AL	L LINES.	(b)				
					,						
Total express mileage in Group IV.		D.—MIL 4. 790. 75			,			7, 428. 25	7, 579. 84		8, 525. 56
			5, 112. 45 1, 190. 93		,	5, 821. 32		7, 428. 25 1, 459. 70 420. 38			

GROUP V.

A.-MILEAGE OPERATED OVER RAILWAYS.

Total mileage operated over railways in Group V.	7, 652. 73 8, 682. 49	8,444.83 10,583.10	11, 581. 77 12, 464. 12 12, 764. 10	14, 298. 58 15, 171. 21	16, 150. 36 16, 524. 48
Adams Express Company Baltimore and Ohio Express Company Pacific Express Company				. 1, 053. 14 (a)	1, 465, 52 1, 507, 00 640, 58 687, 98
	6, 885. 27 7, 312. 49	8, 112, 82 9, 113, 82	10, 099. 09 10, 981. 44 11, 281. 48	11, 571. 37 11, 798. 11	

B.-MILEAGE OPERATED OVER WATER LINES.

						_					
Total mileage operated over water	150. 00	150.00	150.00	150.00	150.00	150.00	150.00	150.00	150.00	150.00	
lines in Group V.	,						-				
Adams Express Company	150.00	150. 00	150.00	150.00	150.00	150.00	150, 00	150.00	150, 00	150.00	

a Sold to United States Express Company in 1887.

TABLE 1.-MILEAGE OPERATED BY EXPRESS COMPANIES OVER RAILWAYS, WATER LINES, AND STAGE LINES DURING THE YEARS 1880-1890, INCLUSIVE-Continued.

Part 1.-BY COMPANIES IN EACH GROUP-Continued.

			GROJ	JP V—Co	ontinu e d.				·		
		CMILI	EAGE OPI	ERATED (OVER STA	GE LINES	S. 				
COMPANIES	1880	1881	1882	1888	1884	1885	1886	1887	1888	1889	1890
Total mileage operated over stage lines in Group V.	110.00	88.00	i	101.00	84. 00	74.00	74.00	105.00	105. 00	115. 00	122.00
Adams Express Company		88.00		101.00	84. 00	74.00	74.00	105. 00	105.00	115.00	122.00
		D.—MI	LEAGE O	PERATED	OVER AI	LL LINES.			· ·	· · · ·	-
Total express mileage in Group V	7, 912. 73	8, 920, 49	9, 695. 83	10, 844. 16	11, 815. 77		1 .	14, 553. 58	15, 426. 21	16, 415. 36	16, 646. 4
Adams Express Company				1, 730. 34	1, 716, 68	1, 706. 68	1, 706, 68	1, 415. 62 1, 053. 14	(a)	1, 730. 52	1.629.0
Pacific Express Company	6 885 97	7 219 40	8 119 29	9, 113. 82	10, 099. 09	10, 981. 44	11, 281. 48	513. 45 11, 571. 37		640. 58 12, 614. 67 1, 429. 59	
	<u></u>		'	'· ——	гезв Сотрат	·	·	<u> </u>	·		
			(GROUP	VI.						
		A.—MII	LEAGE OF	PERATED	OVER RA	ILWAYS.					
Total mileage operated over rail- ways in Group VI.	23, 920. 62	25, 902. 99	28, 326. 34	29, 736. 29	31, 429. 61	30, 732. 45	32, 769. 53	34, 135. 77	39, 610. 65	37, 726. 56	37. 848. 42
Adams Express CompanyAmerican Express CompanyBaltimore and Ohio Express Company	926. 90 13, 713. 24	1, 011. 06 14. 729. 41	1, 081. 56 16, 128. 80	1, 194, 06 17, 208, 51	1, 194, 06 18, 601, 12	1, 197. 76 17, 828. 81 370, 76	1, 192, 69 18, 587, 69 370, 76	1, 494. 26 19, 266. 96 446. 52	5, 174. 21 19, 898. 36 (a)	5, 201. 25 21, 113. 15	5, 103.00 20, 540.03
Northern Pacific Express Company Ohio and Mississippi Express Company	586.00 370.76	618. 00 370, 76	618.00 370.76	783, 60 370, 76	1, 044. 54 370. 76	1, 095. 17	1, 174. 91	1, 314. 75		1, 435, 67	2, 388. 14

B.-MILEAGE OPERATED OVER WATER LINES.

3, 269, 80

3, 307, 20

2, 686. 10

6, 497. 66

2, 906, 00

7, 221. 22

Total mileage operated over wate lines in Group VI.		20.00	20.00
nnes in Group vi.	——————————————————————————————————————		
American Express Company		 20.00	20,00
• • •	i ;		

C.-MILEAGE OPERATED OVER STAGE LINES.

Total mileage operated over stage lines in Group VI.	 5. 00	5, 00	11.00	11.00	36, 00	26.00	47. 00	32. 00	35.00
Adams Express Company American Express Company	5. 00	5.00	11.00	11.00	36.00	26, 00	47. 00	32.00	4. 00 31. 00

D.-MILEAGE OPERATED OVER ALL LINES.

Total express mileage in Group VI	23, 920. 62	25, 902. 99	28, 331. 34	29, 741, 29	31, 440. 61	30, 743. 45	32, 825. 53	34, 181. 77	39, 657. 65	37, 758, 56	37, 883. 42
Adams Express Company	13, 713, 24 586, 00		16, 133. 80 618. 00		1, 194, 06 18, 612, 12 1, 044, 54 370, 76	1, 197, 76 17, 839, 81 370, 76 1, 095, 17	1, 192, 69 18, 643, 69 370, 76 1, 174, 91	19, 312. 96		5, 201. 25 21, 145. 15 1, 435. 67	5, 107, 00 20, 571, 03 2, 588, 14
Pacific Express Company Southern Express Company United States Express Company Wells, Fargo & Co. s Express	2, 131, 30 6, 192, 42	2, 686. 10 6, 487. 66	2, 906, 00 7, 221, 22	3, 269. 80	3, 307, 20	2, 444. 45 7, 764. 08 31, 42	3, 226. 01 152. 00 8, 034. 05 31. 42	2, 354, 94 152, 00 9, 074, 92 31, 42		1, 951, 43 152, 00 7, 227, 74 645, 32	1, 951, 00 152, 00 6, 986, 25 728, 00

 $[\]boldsymbol{a}$ Sold to United States Express Company in 1887.

Pacitic Express Company 2, 131, 30 Southern Express Company United States Express Company 6, 192, 42 Wells, Fargo & Co.'s Express

GROUP VII.

Total mileage operated over rail- ways in Group VII.	2. 265. 70 2, 449. 42	4, 035. 32 3,	, 559. 17 4, 467. 67	4, 806, 06	5, 550. 80 6,	985. 86 7, 346. 34	7, 878, 95	8, 785, 28
American Express Company (a) Northern Pacific Express Company			564.60 752,30	752, 30		549, 25 549, 25 752, 30 785, 90	742, 95 785, 90	755, 22 1, 228, 86
Pacific Express Company	343, 69 355, 22	355, 22	(b) 1, 666, 40			572. 83 1. 592. 07	1, 680. 51	2, 305-49
Wells, Fargo & Co.'s Express	. 	1, 148. 68 1.	. 643. 97 2, 048. 97	2, 351, 92	3, 039. 70 4, :	111.48 4.419.12	4, 669, 59	4, 495, 71

a Operations for 1880-1882 over the Chicago, Burlington and Quincy and Fremont, Elkhorn and Missouri Valley railroads; operations for 1887-1890 over the Great Northern and Montana Central railroads.

b No operations in this group after 1882.

b Operated by Adams Express Company since 1884.

TABLE 1.—MILEAGE OPERATED BY EXPRESS COMPANIES OVER RAILWAYS, WATER LINES, AND STAGE LINES DURING THE YEARS 1880-1890, INCLUSIVE—Continued.

Part 1.—BY COMPANIES IN EACH GROUP—Continued.

GROUP VII-Continued.

B.-MILEAGE OPERATED OVER WATER LINES.

American Express Company (a)	COMPANIES.	1880	1881	1882	1888	1884	1885	1886	1887	1888	1889	1890
C. MILEAGE OPERATED OVER STAGE LINES.				:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	
Total mileage operated over stage	•				1.00	1.00	1 00	1.00	1. 00	1. 00	1.00	
Vells, Fargo & Co.'s Express DMILEAGE OPERATED OVER ALL LINES. Total express mileage in Group 2,295.70 2,446.42 4,055.22 3,590.17 4,496.07 5,101.00 5,751.80 6,990.80 7,747.34 7,879.85 8,760.05 776			CMILI	EAGE OPE	ERATED (VER STA	GE LINES	S.				
D.—MILEAGE OPERATED OVER ALL LINES. Total express mileage in Group 2,285.70 2,449.42 4,035.22 8,560.77 4,468.67 5,101.06 5,751.80 6,966.86 7,347.54 7,878.65 8,788.11 7,878.65 7,878	Total mileage operated over stage lines in Group VII.						294. 00	200.00				
Total express mileage in Group Total express Company (a)	-				· · · · · · · · · · · · · · · · · · ·		294.00	200.00			•••••	
VII. merican Express Company (a) 606, 01 770, 50 950, 02 1.00 1.00 1.00 1.00 1.00 550, 25 850, 25 744, 95 750 750 750 750 750 750 750 750 750 75			DMII	EAGE OP	ERATED	OVER AL	L LINES.					
Forthern Pacific Express Company 1, 1346.06 1, 232.01 1, 234.00 1, 584.60 1, 584.60 1, 684.61 1, 700.84 1, 710.86 1, 710.85 1,		2, 265. 70	2, 449. 42	4, 035. 32	3, 560. 17	4, 468. 67	5, 101. 06	5, 751. 80	6, 986. 86	7, 347, 34	7, 879. 95	8, 785. 28
Total mileage operated over rail:	Iorthern Pacific Express Company			221.00	564.60	752. 30	752. 30	752. 30	752. 30	785. 90	785. 90	755. 22 1, 228. 86 2, 305. 49
GROUP VIII. A.—MILEAGE OPERATED OVER RAILWAYS. Total mileage operated over rail	Inited States Express Company	343, 69		355. 22	(b)							
## B No operations in this group after 1882. GROUP VIII.	a Operations for 1880-1882 over the	Chicago, E	Burlington	and Quincy	and Frem	ont, Elkhor	n and Mis	souri Valle	y railroad	; operation	ns for 1897-	-1890 over
Total mileage operated over rail 8, 784, 70 12, 514, 73 13, 288, 29 13, 319, 19 13, 802, 29 14, 247, 66 14, 073, 06 17, 617, 21 18, 344, 94 19, 342, 33 20, 15 ways in Group VIII. Adams Express Company	b No operations in this group after	1882.		G	ROUP V	III.						
ways in Group VIII.			AMIL	EAGE OPI	ERATED (OVER RAI	LWAYS.					
Mains Express Company	Total mileage operated over rail-	8, 784. 70	12, 514. 73	13, 288. 29	13, 319. 19	13, 802. 29	14, 247. 66	14, 073. 06	17, 617. 21	18, 344. 94	19, 342, 33	20, 154. 5
Action A	dams Express Company	68.00	68.00	(a)	. 				61.42	(a)	2, 287. 22	2, 205. 0
Outhern Express Company 842.29 919.29 1,039.29 1,344.23 1,382.23 1,735.23 682.94 522.94 321.95 321.95 1,20 exas Express Company 430.04 430.00 1.65 0.50 0.50 0.50 0.50 0.50 0.50 0.50 0	acific Express Companyt. Louis, Iron Mountain and Southern	2, 972, 09	4, 019. 10	4, 687. 10						1, 463.00		1, 687. 00 9, 101. 23
BMILEAGE OPERATED OVER WATER LINES.	Southern Express Company			1, 039. 29		1, 362. 23 430. 04			430.04	530. 36	581.76	1, 201. 00 (c)
Total mileage operated over water	United States Express Company Wells, Fargo & Co.'s Express		1 789, 67	1, 820. 47	2, 219. 05	2, 446. 00	2, 544. 05	2, 641. 83				1, 765. 00 4, 195. 31
Lines in Group VIII.		<u> </u>	BMILE	AGE OPE	RATED O	VER WAT	ER LINES	s. ·				
C.—MILEAGE OPERATED OVER STAGE LINES. Total mileage operated over stage lines in Group VIII. Adams Express Company					0. 50	0.50	0. 50	0. 50	0. 50	0. 50	0. 50	
Total mileage operated over stage 44.00 40.00					0.50	0.50	0, 50	0, 50	0. 50	0. 50	0.50	
DMILEAGE OPERATED OVER ALL LINES. DMILEAGE OPERATED OVER ALL LINES. DMILEAGE OPERATED OVER ALL LINES. DMILEAGE OPERATED OVER ALL LINES. DMILEAGE OPERATED OVER A			C.—MIL	EAGE OPI	ERATED (VER STA	GE LINES	S.	!		·	!
Adams Express Company. 44. 00 40.00 DMILEAGE OPERATED OVER ALL LINES.	Total mileage operated over stage	Ī										·
Total express mileage in Group 8,784.70 12,558.73 13,328.29 13,319.60 13,802.70 14,248.16 14,073.56 17,617.71 18.345.44 19,342.83 20,15 VIII. Adams Express Company 3,743.32 4,257.67 4,616.43 2,791.84 2,982.97 2,978.27 3,229.42 2,753.47 2,209.86 2,287.22 2,20 American Express Company 68.00 68.00 0.50 0.50 0.50 0.50 0.50 0.50 0.50	_ ·				· · · · · · · · · · · · · · · · · · ·							
VIII. Adams Express Company			D.—MIL	— - EAGE OP	ERATED	OVER AL	L LINES.	' <u>-</u>		·		'
Adams Express Company. 3, 743. 32 4, 257. 67 4, 616. 43 2, 791. 84 2, 982. 97 2, 978. 27 3, 229. 42 2, 753. 47 2, 209. 86 2, 287. 22 2, 20 American Express Company. 68. 00 68. 00 0.50 0.50 0.50 0.50 61. 92 0.50 0.50 Pacific Express Company. 2, 972. 09 4, 019. 10 4, 687. 10 4, 975. 03 5, 081. 05 5, 243. 07 5, 771. 83 7, 102. 49 7, 681. 51 8, 301. 00 9, 10 Express Company. 842. 29 919. 29 1, 030. 29 1, 344. 23 1, 362. 23 1, 735. 23 682. 94 522. 94 321. 95 321. 95 321. 95 1, 29 United States Express Company. 430. 04 430. 04 430. 04 430. 04 430. 04 1575. 20 1, 765. 00 1, 7			12, 558. 73	13, 328. 29	13, 319, 69	13, 802. 79	14, 248. 16	14, 073, 56	17, 617. 71	18, 345, 44	19, 342. 83	20, 154, 54
Denver and Rio Grande Express	Adams Express Company	3, 743. 32	4, 257, 67	4, 616. 43		2, 982. 97	2, 978. 27		2, 753, 47			2, 205. 00
Southern Express Company. 842.29 919.29 1,030.29 1.344.23 1,362.23 1,735.23 682.94 522.94 321.95 321.95 1.29 Fexas Express Company. 430.04 430.04 430.04 430.04 530.36 581.76 (c) United States Express Company 1,196.60 1,575.20 1,765.00 1,76	Denver and Rio Grande Express Pacific Express Company	471.00 2,972.09	786.00 4,019.10	4, 687, 10	1, 559, 00	. 1,500.00	1, 317, 00	1, 317. 00	1, 347. 00	1, 463, 00	. 1, 493.00	1, 687, 00 9, 101, 23
United States Express Company 1, 196.60 1,575,20 1,765,00 1,76	Southern Express Company		919. 29	1, 039, 29						321, 95 530, 36		1, 201, 00 (c)
	United States Express Company		1, 789. 67	1, 820. 47					1, 196, 60	1, 575, 20	1, 765, 00	1, 765. 00 4, 195. 31

a Operations over the Atchison, Topeka and Santa Fe railroad suspended in 1882; over St. Louis, Kansas City and Colorado railroad in 1887 only. b Consolidated with PacificExpress Company in 1882. c Business transferred to Southern Express Company in 1890.

TABLE 1.—MILEAGE OPERATED BY EXPRESS COMPANIES OVER RAILWAYS, WATER LINES, AND STAGE LINES DURING THE YEARS 1880-1890, INCLUSIVE—Continued.

Part 1.-BY COMPANIES IN EACH GROUP-Continued.

GROUP IX.

A.-MILEAGE OPERATED OVER RAILWAYS.

COMPANIES.	1880	1881	1882	1888	1884	1885	1886	1887	1888	1889	1899
Total mileage operated over rail- ways in Group IX.	2, 707. 24	4, 002. 93	5, 657. 29	6, 660. 05	6, 651. 54	7, 729. 58	7, 887. 69	8, 828. 15	8, 759. 51	8, 945. 71	9, 088. 9
Baltimore and Ohio Express Company Pacific Express Company Southern Express Company Texas Express Company	93. 00 72. 70	271. 00 72. 70 3, 659. 23	722. 50 142. 00 4. 792. 79	875. 50 170. 40 4, 040. 38	902. 50 170. 40 4, 040. 38	1, 749. 00 170. 40 3, 605. 81	3, 917, 50 189, 00 1, 423, 64	189. 00 4, 473. 50 (b) 1, 818. 49	(a) 4, 176. 50 933. 60	4, 283. 50 933, 60	4, 562. 9 1, 028. 0 (e)
United States Express Company Wells, Fargo & Co.'s Express						2, 204. 37	2, 357. 55	2, 347. 16	194. 25 3, 455. 16	218. 25 3, 510. 36	256. 0 3, 242. 0
		D. —MILE	EAGE OPE	RATED O	VER ALL	LINES. (d)	•			
Total express mileage in Group IX.	2, 707. 24	4, 002. 93	5, 657. 29	6, 660. 05	6, 651. 54	7, 729 . 58	7, 887. 69	8, 828. 15	8, 759. 51	8, 945. 71	9, 088. 1
Baltimore and Ohio Express Company Pacific Express Company Southern Express Company	93. 00 72. 70	271. 00 72. 70		875. 50 170. 40	902. 50 170. 40	1, 749. 00 170. 40		189, 00 4, 473, 50 (b)	(e) 4, 176. 50	-4, 283. 50	4, 562. 9 1, 028. 0
Texas Express Company	2, 541, 54	3, 659. 23	4, 792. 79	4, 040. 38	4, 040. 38	3, 605. 81	1, 423. 64	1, 818. 49	933. 60 194. 25	933. 60 218. 25	(c) 256. 0

- a Operations over Vicksburg, Shreveport and Pacific railroad in 1887 only; sold to United States Express Company in 1887. b Operations over Vicksburg, Shreveport and Pacific railroad suspended after 1886. c Business transferred to Southern Express Company in 1890. d No mileage over water and stage lines in this group. c Sold to United States Express Company in 1887.

GROUP X.

							_				•
Total mileage operated over rail- ways in Group X.		5, 828. 50	6, 529, 60	8, 915. 16	9, 817. 77	10, 494. 61	10, 649. 83	10, 929. 14	10, 608. 03	11, 170. 75	11, 023. 82
Adams Express Company Denver and Rio Grande Express	' '	286.00	286.00		369.00			409.00	409.00	409.00	413. 50
Northern Pacific Express Company Pacific Express Company Wells, Fargo & Co.'s Express	306, 10	687. 90	66 5. 70 5, 377. 90		643. 00 1, 432. 34 7, 373. 43	802. 00 1, 831. 35 7, 492. 26	716. 00 1, 797. 67 7, 767. 16	1, 786, 40 2, 146, 59 6, 587, 15	1, 109. 30 2, 158. 30 6, 931. 43	1, 247. 04 2, 392. 96 7, 121. 75	1, 102, 90 2, 039, 34 7, 468, 90
		BMILE	AGE OPE	RATED O	VER WAT	ER LINES	s.				
Total mileage operated over water lines in Group X.		2, 180, 00		3, 354. 00	3, 354. 00	3, 430. 00	3, 485. 00	3, 451. 00	3, 485. 00	2. 350. 00	
Northern Pacific Express Company				1, 174. 00	1, 174. 00	1, 250. 00	1. 305, 00	100.00 1,296.00	100.00 1.330.00	100.00 195.00	161, 00 195, 00
Pacific Express Company	2. 180. 00	2, 180, 00	2, 180. 00	2, 180. 00	2, 180, 00	2, 180, 00	2. 180. 00		2, 055. 00	2, 055. 00	3, 246. 00
	_,			ı							
	,		 EAGE OPF	ERATED O	VER STA	GE LINES					
Total mileage operated over stage lines in Group X.	1, 919, 00	C.—MILE	AGE OPF		VER STA 4. 117. 00		4, 004. 00	3, 563. 00	3, 996, 00	3, 459. 00	2, 744. 00
Total mileage operated over stage lines in Group X.	4, 919, 00 6, 00	C.—MILE 5, 267. 00					1	3, 563. 00	3, 996. 00	3, 459. 00	
Total mileage operated over stage lines in Group X.	4, 919. 00 6. 00	C.—MILE 5, 267. 00	4. 623. 00	3, 864. 00 (a)	4. 117. 00		4, 004. 00	3, 563. 00			20.00
Total mileage operated over stage lines in Group X. Adams Express Company Northern Pacific Express Company	4, 919. 00 6. 00	C.—MILE 5, 267, 00 56, 00 5, 211, 00	4. 623, 00 56. 00 4, 567, 00	3, 864. 00 (a)	4. 117. 00	4, 647. 00	4, 004. 00				20.00
Total mileage operated over stage lines in Group X. Adams Express Company Northern Pacific Express Company	4, 919, 00 6, 00 4, 913, 00	C.—MILE 5, 267, 00 56, 00 5, 211, 00 D.—MIL	4. 623. 00 56. 00 4, 567. 00 EAGE OP	3, 864. 00 (a) 3, 864. 00 PERATED	4. 117. 00 4, 117. 00 OVER AL	4, 647. 00 4, 647. 00 L LINES.	4,004.00	3, 563. 00	3, 996, 00	3, 459. 00	20, 00 2, 724, 00
Total mileage operated over stage lines in Group X. Adams Express Company Northern Pacitic Express Company Wells, Fargo & Co.'s Express	4, 919, 00 6, 00 4, 913, 00 - 12, 008, 81 6, 00	C.—MILE 5, 267, 00 56, 00 5, 211, 00 D.— MIL 13, 275, 50	4. 623. 00 56. 00 4. 567. 00 EAGE OF 13, 332. 60	3, 864, 00 (a) 3, 864, 00 PERATED (16, 133, 16)	4. 117. 00 4, 117. 00 OVER AL	4, 647. 00 4, 647. 00 L LINES.	4,004.00	3, 563. 00	3, 996, 00	3, 459. 00	20, 00 2, 724, 00

 $[\]alpha$ No operations in this group after 1882.

TABLE 1.-MILEAGE OPERATED BY EXPRESS COMPANIES OVER RAILWAYS, WATER LINES, AND STAGE LINES DURING THE YEARS 1880-1890, INCLUSIVE—Continued.

Part 2.-BY COMPANY TOTALS.

COMPANIES.	1880	1881	1882	1888	1884	1885	1884	1887	1888	1889	1890
Total mileage operated over rail- ways.	90, 649. 75	102, 614. 28	11 4 , 1 29 . 01	128, 688. 38	128, 801, 69	131, 557. 14	139, 202. 83	151, 271. 16	154, 406. 50	157, 897. 66	160, 597. 51
Adams Express Company	14, 351. 57	16, 803. 07	17, 985. 91	18, 119. 48	18, 203. 47	18, 570. 23	19, 709. 68	20, 784. 75	24, 401. 73	24, 817. 90	23, 300. 50
American Express Company	24, 903. 09 1, 555. 49	26, 353. 08 1, 592. 97	28, 573, 17 1, 635, 07	33, 681. 61 1, 688. 29	34, 655. 51 2, 675. 69	83, 873. 78 2, 686. 09	34, 384. 64 2, 803. 69	36, 175. 87 4, 852. 02	36, 796. 70 (a)	38, 510. 75	40, 183. CO
Camden and Atlantic Express Company . Canadian Express Company	67. 79 237. 81	73. 50 237. 81	73. 50 237. 81	66.76 237.81	66. 76 237. 81	79. 27 237. 81	79. 27 237. 81	79. 27 237. 81	79. 93 237. 81	81. 17 237. 81	78. 93 (b)
Cincinnati, Georgetown and Portsmouth Express Company.	20.40	34. 80	34. 80	34. 80	34. 80	42.00	42.00	42.00	42.00	42.00	42. 00
Delaware, Lackawanna and Western Express Company.	818. 42	925. 52	1, 065. 92	1, 021. 87	1, 021. 87	1, 021. 50	1, 057. 75	(c)			
Denver and Rio Grande Express Dominion Express Company		786.00	1, 165. 00	1,928.00	1, 869. 00 20. 00	20.00	1, 686. 00 20. 00	1, 756. 00 20. 00	1, 872. 00 20. 00	1, 902. 00 252. 00	2, 100. 50 252. 00
Earle & Prew's Express		201.00	201.00	245.00	245. 00	245.00	245.00	245. 00	245.00	245.00	146.00
Erie Express CompanyErie and New England Express Company.			206. 27	206, 27	(6)	.	2, 625. 75	2, 641. 38	(d)		j
Long Island Express Company Louisville, New Albany and Chicago	289. 40	289. 40	377.39	. 354. 12	354. 12	355. 81	356. 59	360. 38	356. 81	360, 94	352. 79
Express Company. National Express Company		1, 150. 69	1, 217. 79	2, 003. 89	2, 089. 06	2, 116. 50	2, 147. 94	1, 868. 02	1, 926. 84	2, 013. 83	1, 385. 00
	1	!	1, 167, 00		1, 167. 00	·	1	1, 167. 00	1, 167. 00	1, 167. 00	887. CO
New England Despatch Express Com- pany. New York and Boston Despatch Express	1, 167. 00 251. 00	1. 167. 00 251. 00	379.00	1, 167. 00 379. 00	351.00	374.00	374.00	374.00	374.00	374.00	399, 23
Company.	1		1		2, 439. 84	2, 649, 47			3, 336, 61	3, 468, 61	
Northern Pacific Express Company Ohio and Mississippi Express Company	. 616. 20	618. 00 616. 20	839. 00 616. 20	1, 882. 20 616. 20	616. 25	(g)	2, 643. 21	3, 853, 45			4, 719. 00
Pacific Express Company		9, 734. 70	11, 225. 00		!	1	•	18, 763. 30	18, 697. 66	19, 849, 48	21, 127. (0
Philadelphia and Reading Express Com- pany.	1, 094. 00	1, 118. 00	1, 118.00		• 1, 263.00	1, 383. 03	1, 383. 00	1, 383. 00	(h)		
Pittsburg and Western Express Company St. Louis, Iron Mountain and Southern Express Company.	685.00	719.00	(j)	208. 87	288. 17	288. 17	340. 37	340, 37	371.47	(6)	
Southern Express Company Texas Express Company	11, 330. 30 2, 541. 54	11, 977. 02 3, 659. 23	13, 088. 35 4, 792, 79	14, 723. 29 4, 470. 42	15, 899, 76 4, 470, 42		17, 123. 69 1, 853. 68	17, 229, 10 2, 248, 53	17, 791, 62 1, 463, 96	18, 992 , 42 1, 515, 36	21, 714. 00 (L)
Union Express Company	1, 953. 77 12, 214. 84 1, 861. 72	2, 170. 17 13, 108. 50 1, 861. 72	2, 770. 15 14, 589. 25 1, 861. 27	3, 165, 98 14, 727, 35 1, 744, 32	(l) 14, 016. 86 (m)	15, 136. 42	15, 820. 28	19, 336. 43	22, 538, 34	20, 492, 13	20, 587. 50
pany. Wells, Fargo & Co.'s Express	4, 603, 71	6, 644. 27	8, 347. 05	12, 261. 85	13, 438. 08	14, 624. 02	15, 837. 66	17, 280, 46	22. 444. 04	23, 329, 70	23, 128. 00
West Jersey Express Company		333. 72 185. 91	352. 67 209. 65	212. 00	223, 36	228. 85	222. 31	233, 02	242. 98	245, 56	245. 06
	··	B.—MIL	EAGE OP	ERATED (OVER WA	TER LINE	S.				
Total mileage operated over water lines.	7, 036. 00	1	7, 366. 00	8, 393, 50	8, 376. 50	8, 538. 50	8, 689. 50	8, 724. 50	9, 014. 50	8, 207. 50	10, 882. 00
Adams Express Company	1,104.00	1, 104. 00	1, 104. 00	1, 076. 00	1, 076. 00		1, 187, 00		1, 410. 00	1;493.00	1, 437. 00
American Express Company	1, 663. 00	1, 723. 00 218. 00	1, 993. 00 218, 00	1, 874, 50 218, 00	1, 857. 50 218. 00		1, 928, 50 218, 00		1, 714. 50 218, 00	1, 959. 50 218. 00	2, 863, 00 218, 00
National Express Company New England Despatch Express Company	231.00	231. 00 1, 407.00	231. 00 1, 407. 00	231. 00 1, 407. 00	231.00	231.00	231. 00 1, 407. 00	231.00	231. 00 1, 407. 00	231. 00 1, 407. 00	231.00 1,407.00
New York and Boston Despatch Express Company.	233.00	233. 00	233. 00	233.00	233. 00	233. 00	233. 00	233. 0 0	233. 00	233. 00	233.00
Northern Pacific Express Company Pacific Express Company			<u> </u>	1, 174. 00		1, 250. 00	1, 305. 00	100.00 1, 296.00	100.00 1, 330.00	100.00 195.00	161.00 195.00
United States Express Company				.	2, 180. 00	2, 180. 00	2, 180. 00	65, 00 2, 055, 00	316. 00 2, 055. 00	316.00 2,055.00	
		C MIL	EAGE OP	ERATED (OVER STA	GE LINE	s.			·' - 	
Total mileage operated over stage	5, 131. 00	5, 526. 00	4, 898. 00	4, 065. 00	4, 295. 00	5, 084. 00	4, 367. 00	3, 765, 00	4, 207. 00	3, 752. 00	3, 055. 00
lines. Adams Express CompanyAmerican Express Company	189. 00 29. 00	261. 30 54. 00	270. 00- 61. 00	135. 00 66. 00	128. 00 50. 00	118.00 25.00	50.00	54.00	124. 00 78. 00		181. 00 130. 00
National Express Company Northern Pacific Express Company Wells, Fargo & Co.'s Express	4, 913. 00	E 911 to	4 847 00	2 044 00	4 117 00	4 041 cc	. 23.00	.1	9.00	· . 	20.00
wens, rango acous express	*, 813. 00	5, 211. 00	4, 407, 00	3, 864. 00	4, 117. 00	4, 941. 00	4, 204. 00	8, 563. 00	3, 996. 00	3, 459. 00	2, 724. 00

a Sold to United States Express Company in 1887.
b No information furnished for 1890.
c Sold to United States Express Company in 1886.
d Business transferred to Wells, Fargo & Co.'s Express in 1887.
b Business transferred to Wells, Fargo & Co.'s Express in 1883.
f Express turned over to American Express Company in 1882.
g Operated by Adams Express Company since 1884.

h Service turned over to United States Express Company in 1887.
i Operated by Wells, Fargo & Co.'s Express since 1888.
j Consolidated with Pacific Express Company in 1882.
k Business transferred to Southern Express Company in 1890.
l Good will transferred to Adams Express Company in 1883.
m Business divided between Adams and American Express Companies in 1884.
n Known as the Long Island Express Company after 1882.

TABLE 1.-MILEAGE OPERATED BY EXPRESS COMPANIES OVER RAILWAYS, WATER LINES, AND STAGE LINES DURING THE YEARS 1880-1890, INCLUSIVE-Continued.

Part 2.—BY COMPANY TOTALS—Continued.

D.-MILEAGE OPERATED OVER ALL LINES

COMPANIES.	1880	1881	1882	1888	1884	1885	1886	1887	1888	1889	1890
Total express mileage operated over all lines.	102, 816, 75	115, 236. 28	126, 393. 01	141, 146. 88	141, 473. 19	145, 179. 64	152, 259. 33	163, 760. 66	167, 628. 00	169, 857. 16	174, 534. 51
dams Express Company	15, 644. 57	18, 168. 07	19, 359. 91	19, 330, 48	19, 409. 47	19, 799. 23	20, 986. 68	22, 293. 75	25, 935, 73	26, 503. 90	24. 918 50
merican Express Company	26, 595, 09 1, 555, 49	28, 132, 08 1, 592, 97	30, 627. 17 1, 635, 07	35, 622. 11 1, 688, 29	86, 563. 01 2, 675. 69	35, 807. 28 2, 686, 09	36, 363, 14 2, 803, 69	37. 964. 37 4, 852. 02	38, 589. 20	40, 570. 25	43, 126.00
amden and Atlantic Express Company	67.79	73.50	73.50	66.76	66. 76	79. 27	79. 27	79. 27	(a) 79.93	81. 17	78.93
anadian Express Company	237.81	237. 81	237. 81	237. 81	237.81	237. 81	237. 81	237. 81	237. 81	237. 81	(b)
Incinnati, Georgetown and Portsmouth Express Company.	20. 40	34 . 80	34. 80	34.80	34. 80	42.00	42.00	42.00	42.00	42. OC	42.00
Delaware, Lackawanna and Western Express Company.	818. 42	925.52	1, 065. 92	1, 021. 87	1,021.87	1, 021. 50	1, 057. 75	(c)	! 	ļ	
enver and Rio Grande Express	474.00	786.00	1, 165. 00	1, 928. 00	1, 869. 00		1, 686. 00	1, 756, 00	1, 872, 00	1, 902. 00	2, 100. 5
ominion Express Company	419.00	419.00	419.00	463.00	20.00 463.00		20.00 463.00	20.00 463.00	20.00 463.00	252, 00 463, 00	252. 0 364. 0
•											
rie Express Company			206, 27	206, 27	(e)		2, 625. 75	2,641.38	(d)		
ong Island Express Company				354.12	354. 12	355. 81	856. 59	360. 38	356. 81	360. 94	352.7
ouisville, New Albany and Chicago Express Company.	289. 40	289. 40	377.39	S		! .			! 		
ational Express Company	1,381.69	1, 381. 69	1, 448. 79	2, 234. 89	2, 320. 06	2, 347. 50	2, 401. 94	2, 123. 02	2, 166. 84	2, 244, 83	1, 616. 0
lew England Despatch Express Com-	2, 574. 00	2, 574. 00	2, 574. 00	2, 574. 00	2, 574. 00	2, 574. 00	2, 574. 00	2, 574. 00	2, 574. 00	2. 574. 00	2, 294. 0
pany. [ew York and Boston Despatch Express Company.	484. 00	484. 00	612.00	612.00	584.00	607.00	607.00	607. 00	607.00	607.00	632. 2
orthorn Pacific Express Company	586.00	618.00	839.00	3, 056. 20	3, 613. 84	3, 899. 47	3, 948. 21	3, 953. 45	3, 436. 61	3, 568, 61	4, 900. 0
hio and Mississippi Express Company	616. 20 7, 172. 09	616, 20 9, 734, 70	616. 20 11, 225. 00	616, 20 12, 375, 05	616. 25 13, 152. 86	(g) · 13, 488, 18	17, 041. 51	20, 059. 30	20, 027. 66	20, 044, 48	21, 322, 0
chiladelphia and Reading Express Com-	1, 094. 00	1, 118. 00	1. 118. 00	•1, 167. 00	1, 263. 00	1, 383. 00	1, 383.00	1, 383. 00	(h)		
pany. ittsburg and Western Express Company.				208, 87	288. 17	288, 17	340, 37	340, 37	371.47	(i)	
t. Louis, Iron Mountain and Southern	6 85. 0 0	719.00	(j)								
Express Company.	11, 330, 30	11, 977, 02	13, 088, 35	14, 723, 29	15 899 76	17, 253, 19	17, 123, 69	17, 229, 10	17, 791, 62	18, 992, 42	21, 714, 0
exas Express Company	2, 541. 54	3. 659. 23	4, 792. 79	4, 470, 42	4, 470, 42	4, 035, 85	1, 853. 68	2, 248. 53	1, 463, 96		(k
Inion Express Company	1,953.77	2, 170, 17	2, 770, 15	3, 165, 93	(1)	, 					
Inited States Express Company Inited States and Canada Express Com-	12, 214, 84 1, 861, 72	13, 108. 50 1, 861. 72	14, 589, 25 1, 861, 27	14, 727. 35 1, 744. 32	14, 016. 86 (m)	15. 136. 42	15, 820. 28	19, 401. 43	22, 854. 34	20, 808. 13	21, 478, 5
pany. Vells, Fargo & Co.'s Express	11, 696, 71	14, 035. 27 333, 72	15, 094, 05		19, 735. 08	21, 745. 02	22, 221. 66	22, 898. 46	28, 495. 04	28, 843, 70	29. 098. 0
Vestcott's Express Company Vest Jersey Express Company	320.01 182.91	333. 72 185. 91	352.67 209.65	(n) 212, 00	223. 36	223. 85	222, 31	233. 02	242. 98	`	

Part 3.-BY GROUP TOTALS.

GROUPS.	1880	1881	1882	1888	1884	1885	1886	1887	1888	1889	1890
Total express mileage operated over railways.	90, 649, 75	102, 614, 28	114. 129. 01	128, 688, 38	128, 801, 69	131, 557. 14	139. 202. 83	151, 271. 16	154, 406, 50	157, 897, 66	160, 597, 51
Group 1	15, 133, 20	7, 281, 40 14, 053, 77 17, 107, 30 4, 790, 75 8, 682, 49	18, 533, 56 5, 112, 45	8, 979, 37 17, 494, 37 23, 982, 35 5, 449, 27 10, 593, 16	7, 771, 50 16, 398, 09 21, 158, 21 5, 723, 24 11, 581, 77	7, 737, 90 16, 904, 34 20, 619, 10 5, 821, 32 12, 464, 12	19, 286, 20 22, 274, 15 6, 273, 47	19, 653, 59 23, 718, 20	7, 650, 37 17, 957, 48 21, 378, 13 7, 579, 84 15, 171, 21	8, 186, 74 18, 686, 96 21, 811, 17 7, 998, 13 16, 150, 36	8, 815, 23 18, 068, 78 21, 762, 50 8, 525, 50 16, 524, 48
VI VII CIII 1X X	2, 265, 70	25, 902, 99 2, 449, 42 12, 514, 73 4, 002, 93 5, 828, 50	28, 326, 34 4, 035, 32 13, 288, 29 5, 657, 29 6, 529, 60	29, 736, 29 3, 559, 17 13, 319, 19 6, 660, 05 8, 915, 16	31, 429, 61 4, 467, 67 13, 802, 29 6, 651, 54 9, 817, 77	30, 732, 45 4, 806, 06 14, 247, 66 7, 729, 58 10, 494, 61	32, 769, 53 5, 550, 80 14, 073, 06 7, 887, 69 10, 649, 83	34, 135, 77 6, 985, 86 17, 617, 21 8, 828, 15 10, 929, 14	39, 610, 65 7, 346, 34 18, 344, 94 8, 759, 51 10, 608, 03	37, 726, 56 7, 878, 95 19, 342, 33 8, 945, 71 11, 170, 75	37, 848, 42 8, 785, 28 20, 154, 54 9, 088, 96 11, 023, 82
		B.—MILI	EAGE OPE	ERATED O	VER WA	TER LINE	s.				
Total express mileage operated over water lines.	7, 036, 00	7. 096. 00		8, 393, 50			S. 8. 8. 689. 50	8, 724, 50	9, 014, 50	8, 207, 50	10, 882, 0
	7, 036, 00 3, 195, 00 668, 00 843, 00 150, 00			8, 393, 50 = = 3, 392, 00 673, 00 823, 00	8, 376, 50 3, 352, 00 696, 00			8, 724, 50 3, 343, 00 958, 00 801, 00 150, 00	9, 014, 50 3, 594, 00 983, 00 801, 00 150, 00	3, 864, 00 958, 00	10, 882, 66 5, 026, or 1, 208, or 1, 046, or

a Sold to United States Express Company in 1887.
b No information furnished for 1890.
c Sold to United States Express Company in 1886.
d Business transferred to Wells, Fargo & Co.'s Express in 1887.
c Business transferred to Wells, Fargo & Co.'s Express in 1883.
f Express turned over to American Express Company in 1882.
g Operated by Adams Express Company since 1884.

A Service turned over to United States Express Company in 1887.

i Operated by Wells, Fargo & Co.'s Express since 1888.

j Consolidated with Pacific Express Company in 1882.

k Business transferred to Southern Express Company in 1890.

1 Good will transferred to Adams Express Company in 1883.

m Business divided between Adams and American Express Companies in 1884.

n Known as the Long Island Express Company after 1882.

TABLE 1.—MILEAGE OPERATED BY EXPRESS COMPANIES OVER RAILWAYS, WATER LINES, AND STAGE LINES DURING THE YEARS 1880-1890, INCLUSIVE—Continued.

Part 3.-BY GROUP TOTALS-Continued.

C.-MILEAGE OPERATED OVER STAGE LINES.

GROUPS.	1880	1881	1882	1888	1884	1885	1886	1887	1888	1889	1890
Total express mileage operated over stage lines.	5, 131. 00	5, 526. 00	4, 898. 00	4, 065, 00	4, 295. 00	5, 084. 00	4, 367. 00	3, 765. 00	4, 207. 00	3, 752. 00	3, 055. 00
Group I	69.00	69.00	69.00	25.00	25.00					30, 00	90.00
II III V	33.00 110.00	58. 00 88. 00	60, 00 101, 00	70.00 101.00	3, 00 55, 00 84, 00	3. 00 55. 00 74. 00	26, 00 27, 00 74, 00	41.00 30.00 105.00	29, 00 30, 00 105, 00	17. 00 99. 00 115. 00	3. v0 61. 00 122. 00
VI			5.00	5. 00	11.00	11.00 294.00	36, 00 200, 00	26.00	47.00	32.00	35. 00
VIII		44.00	40.00								
X	4, 919. 00	5, 267. 00	4, 623. 00	3, 864. 00	4, 117. 00	4, 647. 00	4, 004. 00	3, 563. 00	3, 996. 00	3, 459. 00	2, 744. 00

D.-MILEAGE OPERATED OVER ALL LINES.

Total express mileage operated over all lines.		5, 236. 28 126,			141, 473, 19	1	152, 259. 33	163, 760. 66	167, 628. 00	169, 857. 16	174, 534. 51
Group I	14. 159. 23 14 16, 009. 20 18 4, 607. 55 4	4, 721. 77 16, 8, 008. 30 19, 4, 790. 75 5,	041.55 1 416.56 2 112.45	18, 167, 37 24, 875, 35 5, 449, 27	17, 097, 09 22, 036, 21 5, 723, 24	17, 624. 34 21, 497. 10 5, 821. 32	20, 105, 20	20, 652, 59 24, 549, 20 7, 428, 25	18, 969, 48 22, 209, 13 7, 579, 84	19, 661. 96 22, 794. 17 7, 998. 13	
VI VII VIII IX X	2, 265, 70 2 8, 784, 70 12	2, 449, 42 4, 2, 558, 73 13, 4, 002, 93 5,	035. 32 328. 29 657. 29	3, 560, 17 13, 319, 69 6, 660, 05	4, 468. 67 13, 802. 79 6, 651. 54	5, 101. 06 14, 248. 16 7, 729. 58	32, 825, 53 5, 751, 80 14, 073, 56 7, 887, 60 18, 138, 83	6, 986, 86 17, 617, 71 8, 828, 15	7, 347, 34 18, 345, 44 8, 759, 51	7, 879, 95 19, 342, 83	37, 883, 42 8, 785, 28 20, 154, 54 9, 088, 96 17, 369, 82

TABLE 2.—MILEAGE OPERATED BY EXPRESS COMPANIES ON JUNE 30, 1890, BY ROUTES.

Part 1.-BY COMPANIES IN EACH GROUP.

GROUP I.

A .- MILEAGE OPERATED OVER RAILWAYS.

[The mileage given as operated by express companies over some roads in each group contains a varying amount of mileage lying in other groups.]

Group I. Atlantic and St. Lawrence Railroad Company 166, 58 16	ROUTES.	Adams.	Ameri- can.	Domin- ion.	Earle & Prew's.	National.	New England Despatch.	New York and Boston Despatch.	United States.	Total operated mileage.	Dupli- cated mileage.	Net mileage.
Atlantic and St. Lawrence Railroad Company 166. 58 95.00 56.00			1 "				1			1.	11	6, 861. 33
Boston and Maine Railroad Company. 147.00 1,210.03 167.00 12.00 a1,536.03 326.00 a1,210.03 a1,210.03 a1,210.00 a1,536.03 326.00 a1,210.00 a1,536.03 326.00 a1,210.00 a1,536.03 326.00 a1,210.00 a1,536.03 326.00 a1,210.00 a1,536.03 326.00 a1,210.00 a1,536.03 326.00 a1,210.00 a1,536.03 a2,520.00 a1,536.03 a2,520.00 a1,536.00 a2,520.00 a1,536.00 a2,520.00 a1,536.00 a2,520.00 a1,536.00 a2,520.00 a2,	Sangor and Piscataquis Railroad Company		166, 58 95, 00							166. 58 95. 00	4	
Camadian Pacific Railway Company 05.00 0552.00 05252.00	Soston and Albany Railroad Company	154. 6 3 147. 00	342.00 a1, 210.03				99.00 167.00			595. 63		342.00 a1,219.00
Cheehire Heilroad Company	Canadian Pacific Railway Company			b252 00		į.		. 1		b252.00		b252.00
Fall River, Warren and Providence Railroad	Cheshire Railroad Company		64.01						. 	64. 01		64. 01
Fitchburg Railroad Company	Connecticut River Railroad Company	•••••	79. 85		5. 79							
Enox and Lincoln Railroad	itchburg Railroad Company	16.00	368. 29			255. 09			189. 00	16.00		16.00
Monadonck Railroad Company	Knox and Lincoln Railroad		50.00	: 			1	<u>'</u>		c983. 80		c732.8
Narrágansett Pier Railroad	Ionadnock Railroad Company		15. 80 7. 20	!								
New York, New Haven and Hartford Railroad Company	Varragansett Pier Railroad	8, 50				1		l		8.50		8.54
pany Did Colony Railroad Company 44.00 136.00 44.00 169.00 387.23 780.23 216.68 562.55 20 22.8	New York and New England Railroad Company New York, New Haven and Hartford Railroad	476. 27				' 	201.00			677. 27	201.00	476, 27
Portland and Rochester Railroad Company 52.00 52		64.00	64. 00	i	. 58 . 56	: 				186. 56	64. 00	122. 56
pany. St. Johnsbury and Lake Champlain Railroad Company. Sebasticook and Moosehead Railroad Company. Sebasticook and Moosehead Railroad Company. Sebasticook and Moosehead Railroad Company. Sebasticook and Moosehead Railroad Company. Sebasticook and Moosehead Railroad Company. 8.00 8.00 32.00	Portland and Rochester Railroad Company		52.00			1				52.00		52.00
Pany Pany	pany.									il i	١. '	
Somerset Railway Company	pany. ebasticook and Moosehead Railroad Company hepaug, Litchfield and Northern Railroad Com-		8.00	1				:		8.00		8. 00
xork Haroor and Beach Railroad Company	omerset Railway Company		21.00							21.00		21. 00 14. 00
B.—MILEAGE OPERATED OVER WATER LINES.	ork Harbor and Beach Railroad Company		l	<u> </u>						11.00		11.00

Total mileage operated over water lines in Group 1.							233.00	601.00	5, 026. 00	1, 626. 00	3, 400. 0
ton Bay Wolfboro Line		290. 00 30. 00				428.00			718. 60 30. 00	290.00	18. 0 428. 0 30. 0 400. 0
boat Company. idgeport Steamboat Company		•	: i	i	i i				l	j,	65. 6
nada Atlantic Steamship Company				20.00		i			30.00		400. 0 30. 0
contier Steamboat Companyternational Steamboat Company		30.00 635.00				300.00			30.00 935.60	300.00	30. 6 635. 6 52. 6
Steamboat Company. w England Terminal Company		·····			·····			42.00		·	
w Haven Steamboat Company	35. 00 9. 00		***********	·					35, 00		65. 35. 9.
wport and Wickford Steamboat Company	12.00	••••		•				45.00	45.00		12. 45.
orwich and New York Transportation Company. d Colony Steamboat Company. rtland Steam Packet Company	116 00	,						1	116.00		116. 186. 113.
rtland, Mount Desert and Machias Steamboat			i						432.00		232
Company. ovidence and Newport Steamboat Company onington Line	120. 00		 	188. 00				30. 00 173. 00	30.00 481.00		30. 188
rmouth Steamship Company										20.00	240

a Includes 36.75 miles of line in Canada. b Includes 85.50 miles of line in Canada.

c Includes 52.63 miles of line in Canada.
d New York to Fall River, 181 miles; New York to New Bedford, 185 miles.

TABLE 2.-MILEAGE OPERATED BY EXPRESS COMPANIES ON JUNE 30, 1890, BY ROUTES-Continued.

Part 1.-BY COMPANIES IN EACH GROUP-Continued.

GROUP I-Continued.

C.-MILEAGE OPERATED OVER STAGE LINES.

· ROUTES.	Adams.	Ameri- can.	Domin- ion.	Earle & Prew's.	National.	New England Despatch.	New York and Boston Despatch.		Total operated mileage.	Dupli- cated mileage.	Net mileage.
Total mileage operated over stage lines in Group I.	 	90.00						- 	90.00		90. 00
Lines in Maine		70.00 20.00	·	 					70.00 20.00	:	70. 00 20. 00
	D.—1	MILEAGE	OPERA	TED OVE	R ALL I	LINES.	·		·		
Total express mileage in Group I	1, 756. 00	7, 362. 00	252. 00	364. 00	430. 00	2, 294. 00	632. 23	841.00	13, 931. 23	3, 579. 90	10, 351. 33

GROUP II.

ROUTES.	Adams.	Ameri- can.	Camden and Atlantic.	Long Island.	National.	United States.	Wells, Fargo & Co.'s.	West Jersey.	Total operated mileage.	Dupli- cated mileage.	Net mileag
Total mileage operated over railways in Group II.		4, 568. 00	78, 93	352. 79	955. 00	4, 239. 00	1, 548. 00	245, 06	18, 068. 78	646. 91	17, 421.
ldison and Pennsylvania Railway Company	!•••••	·				· · · · · · · · · · · ·	46.50		46. 50		46.
bany and Susquehanna Railroad Company	·			. 		• • • • • • • • • • • • • • • • • • • •			187. 35		187.
legheny Valley Railroad Company nnapolis and Baltimore Short Line Railroad	200.30					27.75			260. 30 27. 75		260. 27.
Company.		••••				. 21.10			21.15		21.
nnapolis, Washington and Baltimore Railroad Company.	 I			· · · · · · · · · · · · · · · · · · ·	. 	20. 50			20.50		20
lantic City Railroad Company		 				83, 46			83, 46		83
ltimore and Delaware Bay Railroad Company	50.00								50.00		50
ltimore and Eastern Shore Railroad Company	30.00	l	ļ	• • • • • • • • • • • • • • • • • • •		30.00			60.00	30.00	30
oltimore and Ohio Railroad Company (east of Ohio river).		, 	<u>'</u>	• • • • • • • • • • • • • • • • • • • •		1, 109. 32			1, 109. 32		1, 109
ltimore and Potomac Railroad Company	95, 86	l							95, 86		. 9
· •			1						1		i
ltimore and Sparrow Point Railroad Company	4. 70						• • • • • • • • • • • • • • • • • • • •		4.70	!	1 4
ngor and Portland Railway Company	• • • • • • • • • • • • • • • • • • • •		•••••	· • • • • • • • • • •			9.00	• • • • • • • • • • • • • • • • • • • •	32, 51 19, 83		3
th and Hammondsport Railroad Company ech Creek Railroad Company	146 01	,		•••••	•••••	10. 83	9.00		19.83	9.00	14
omsburg and Sullivan Railroad Company	120.01			• • • • • • • • • • • •		30.00			30.00	! • • • • • • • • • • • • • • • • • • •	! 13
			į ·								!
adford, Bordell and Kinzua Railroad Company				. 		50.00	62. 32		112. 32	50.00	6
adford, Eldred and Cuba Railroad Company			'			34. 29	33.00			33.00	3
ffalo, Rochester and Pittsburg Railway Com- any.		204.00	!	• • • • • • • • • • • • • • • • • • • •					284.00		28
nden and Atlantic Railroad Company	59.00	·	78. 93						137. 93	59, 00	7
rtnage and Adirondack Railroad Company									37. 00		3
170 1 101 70 11 11 11		l				05.50			05.50	1	! .
tasauqua and Fogelsville Railroad Company tskill Mountain Railway Company		10 50		• • • • • • • • •							2 1
ntral New England and Western Railroad Com-	164. 64									42.00	16
any.											
			1 .								
itral Railroad Company of New Jersey			l		70 00	66 2. 12			744. 12	82. 00	
ntral Railroad Company of New Jersey Staugay Railroad Company	82.00				72. 82	66 2. 12			744. 12 72. 82	82.00	
staugay Railroad Company		• • • • • • • • • • • • • • • • • • •		• • • • • • • • • • • • • • • • • • • •							. 7
staugay Railroad Company					16.00				16. 00		. 7 . 1
staugay Railroad Company perstown and Charlotte Valley Railroad Com- any. mwall Railroad Company					16.00	12.67	:		16. 00 12. 67		1
staugay Railroad Company	22. 96			· · · · · · · · · · · · · · · · · · ·	16.00	12.67			16. 00 12. 67 22. 96		1 1 2
staugay Railroad Company		17. 00	!		16.00	12. 67			16. 00 12. 67 22. 96		1 1 2
perstown and Charlotte Valley Railroad Com- any. nwall Railroad Company nwall and Lebanon Railroad Company dersport and Port Allegheny Railroad Com- any. any. Seon, Clearfield County and New York Short	22. 96	17. 00	!		16.00	12. 67			16. 00 12. 67 22. 96		7 1 1 2 1
perstown and Charlotte Valley Railroad Com- any. nwall Railroad Company	22. 96	17. 00			16.00	12. 67			16.00 12.67 22.96 17.00		1 1 2
perstown and Charlotte Valley Railroad Com- any. nwall Railroad Company nwall and Lebanon Railroad Company idersport and Port Allegheny Railroad Com- any. sson, Clearfield County and New York Short oute Railroad Company.	22. 96 29. 10	17.00	!		16.00	12.67			16.00 12.67 22.96 17.00 29.10		1 1 2 2
perstown and Charlotte Valley Railroad Com- any. nwall Railroad Company nwall and Lebanon Railroad Company dersport and Port Allegheny Railroad Com- any. sson, Clearfield County and New York Short toute Railroad Company.	22. 96 29. 10	17.00			16.00	12. 67			16.00 12.67 22.96 17.00 29.10		7 1 1 2 1 2
perstown and Charlotte Valley Railroad Com- any. mwall Railroad Company mwall and Lebanon Railroad Company dersport and Port Allegheny Railroad Com- any. sson, Clearfield County and New York Short toute Railroad Company mberland Valley Railroad Company	22. 96 29. 10	17.00			16.00	12. 67			16.00 12.67 22.96 17.00 29.10 144.93 176.19 3.50		7 1 1 2 1 2 2 1 15
perstown and Charlotte Valley Railroad Com- any. mwall Railroad Company. mwall and Lebanon Railroad Company. dersport and Port Allegheny Railroad Com- any. sson, Clearfield County and New York Short toute Railroad Company. mberland Valley Railroad Company. aware and Hudson Canal Company. aware Lackawanna and Western Railroad aware, Lackawanna and Western Railroad	22. 96 29. 10	17.00			16.00	12. 67			16.00 12.67 22.96 17.00 29.10 144.93 176.19	18.00	7 1 1 2 1 2 1 2 1 1 1 5 1 1 1 1 1 1 1 1 1
perstown and Charlotte Valley Railroad Com- any. mwall Railroad Company. mwall and Lebanon Railroad Company. mwall and Lebanon Railroad Company. dersport and Port Allegheny Railroad Com- any. seon, Clearfield County and New York Short toute Railroad Company. mberland Valley Railroad Company. sware and Hudson Canal Company. sware Ray and Cape May Railroad Company. aware Lackawanna and Western Railroad	22. 96 29. 10 144. 93 18. 00	17.00			16.00	12. 67 780. 89		3.50	16.00 12.67 22.96 17.00 29.10 144.93 176.19 3.50 780.89	18.00	7 1 1 1 2 2 1 1 1 15
perstown and Charlotte Valley Railroad Com- any. mwall Railroad Company. mwall and Lebanon Railroad Company. dersport and Port Allegheny Railroad Com- any. seon, Clearfield County and New York Short toute Railroad Company. mberland Valley Railroad Company. aware and Hudson Canal Company. aware Bay and Cape May Railroad Company. aware Lackawanna and Western Railroad	22. 96 29. 10 144. 93 18. 00	17.00			16.00	12. 67		3.50	16.00 12.67 22.96 17.00 29.10 144.93 176.19 3.50 780.89	18.00	78
perstown and Charlotte Valley Railroad Com- any. mwall Railroad Company. mwall and Lebanon Railroad Company. dersport and Port Allegheny Railroad Com- any. seon, Clearfield County and New York Short toute Railroad Company. mberland Valley Railroad Company. aware and Hudson Canal Company. aware Bay and Cape May Railroad Company. aware Lackawanna and Western Railroad company. aware River Railroad Company. mond Valley Railroad Company.	22. 96 29. 10 144. 93 18. 00	17. 00			16.00	12. 67 		3.50	16.00 12.67 22.96 17.00 29.10 144.93 176.19 3.50 780.89 19.97	18.00	7 1 1 2 1 2 1 1 1 5 7 8 1 1 1 1 1 1 1 1
perstown and Charlotte Valley Railroad Com- any. mwall Railroad Company. mwall and Lebanon Railroad Company. dersport and Port Allegheny Railroad Com- any. sson, Clearfield County and New York Short koute Railroad Company. mberland Valley Railroad Company. sware Bay and Cape May Railroad Company. aware Bay and Cape May Railroad Company aware, Lackawanna and Western Railroad company. aware River Railroad Company. mond Valley Railroad Company. mira, Cortland and Northern Railroad Company.	22. 96 29. 10 144. 93 18. 00	17. 00			16.00	12. 67		3.50	16. 00 12. 67 22. 96 17. 00 29. 10 144. 93 176. 19 3. 50 780. 89 19. 97 12. 25 139. 00	18.00	78 1 1
perstown and Charlotte Valley Railroad Com- any. mwall Railroad Company. mwall and Lebanon Railroad Company. mwall and Lebanon Railroad Company. seon, Clearfield County and New York Short toute Railroad Company. mberland Valley Railroad Company. aware and Hudson Canal Company. aware Bay and Cape May Railroad Company. aware, Lackawanna and Western Railroad company. aware River Railroad Company. mond Valley Railroad Company. amare River Railroad Company. amare River Railroad Company. amare River Railroad Company. amare Cortland and Northern Railroad Company. e and Wyoming Valley Railroad Company.	22. 96 29. 10 144. 93 18. 00	17.00			16.00	12. 67	62.25	3.50	16. 00 12. 67 22. 96 17. 00 29. 10 144. 93 176. 19 3. 50 780. 89 19. 97 12. 25 139. 00 62. 25	18.00	78 14 15 78 13 13 13 16 16 16 17 17 17 18 18 18 18 18 18 18 18 18 18 18 18 18
perstown and Charlotte Valley Railroad Com- any. mwall Railroad Company. mwall and Lebanon Railroad Company. dersport and Port Allegheny Railroad Com- any. sson, Clearfield County and New York Short foute Railroad Company. mberland Valley Railroad Company aware and Hudson Canal Company aware Bay and Cape May Railroad Company aware Lackawanna and Western Railroad ompany. aware River Railroad Company. imond Valley Railroad Company ira, Cortland and Northern Railroad Company e and Wyoming Valley Railroad Company 1 Brook Coal Company.	22. 96 29. 10 144. 93 18. 00	17. 00 17. 00 139. 00			16. 00	12. 67	62. 25	3.50	16. 00 12. 67 22. 96 17. 00 29. 10 144. 93 176. 19 3. 50 780. 89 19. 97 12. 25 139. 00 62. 25	18.00	78 14 12 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1
perstown and Charlotte Valley Railroad Com- any. perstown and Charlotte Valley Railroad Com- any. nwall Railroad Company. nwall and Lebanon Railroad Company. dersport and Port Allegheny Railroad Com- any. sson, Clearfield County and New York Short toute Railroad Company. nberland Valley Railroad Company. aware Bay and Cape May Railroad Company. aware Bay and Cape May Railroad Company. aware River Railroad Company. aware River Railroad Company. ira, Cortland and Northern Railroad Company. ira, Cortland and Northern Railroad Company. and Wyoming Valley Railroad Company. ira, Cortland and Gloversville Railroad Com- and Wyoming Valley Railroad Company. da, Johnstown and Gloversville Railroad Com- da, Johnstown and Gloversville Railroad Com-	22. 96 29. 10 144. 93 18. 00	17. 00 17. 00 139. 00			16. 00	12. 67	62. 25	3.50	16.00 12.67 22.96 17.00 29.10 144.93 176.19 3.50 780.89 19.97 12.25 139.00 62.25 231.12	18.00	78 14 15 78 13 13 22
perstown and Charlotte Valley Railroad Com- any. meal Railroad Company. mwall Railroad Company. mwall and Lebanon Railroad Company. dersport and Port Allegheny Railroad Com- any. sson, Clearfield County and New York Short coute Railroad Company. mberland Valley Railroad Company. aware and Hudson Canal Company. aware Bay and Cape May Railroad Company. aware Lackawanna and Western Railroad ompany. aware River Railroad Company. mond Valley Railroad Company. ira, Cortland and Northern Railroad Company. ira, Cortland and Northern Railroad Company. l Brook Coal Company. Il Brook Coal Company. dda, Johnstown and Gloversville Railroad Com- any.	22. 96 29. 10 144. 93 18. 00	17. 00 17. 00 139. 00			16. 00	12. 67	62. 25	3.50	16.00 12.67 22.96 17.00 29.10 144.93 176.19 3.50 780.89 19.97 12.25 139.00 62.25 231.12 22.88	18.00	78 14 15 78 13 13 22 23 2
perstown and Charlotte Valley Railroad Com- any. mwall Railroad Company. mwall and Lebanon Railroad Company. mwall and Lebanon Railroad Company. mwall and Lebanon Railroad Company. mwall and Lebanon Railroad Company. seon, Clearfield County and New York Short toute Railroad Company. mberland Valley Railroad Company. aware Bay and Cape May Railroad Company. aware Bay and Cape May Railroad Company. aware River Railroad Company. mond Valley Railroad Company. mira, Cortland and Northern Railroad Company. e and Wyoming Valley Railroad Company. el Brook Coal Company. da, Johnstown and Gloversville Railroad Company. tysburg and Harrisburg Railroad Cempany.	22. 96 29. 10 144. 93 18. 00 12. 25	17. 00 139. 00 231. 12 22. 88			158. 19	12. 67	62. 25	3.50	16. 00 12. 67 22. 96 17. 00 29. 10 144. 93 176. 19 3. 50 780. 89 19. 97 12. 25 139. 00 62. 25 231. 12 22. 88	18.00	7 1 1 2 2 1 1 4 1 5 7 8 8 6 6 2 3 2 2 2
perstown and Charlotte Valley Railroad Com- any. mwall Railroad Company. mwall and Lebanon Railroad Company. dersport and Port Allegheny Railroad Com- any. sson, Clearfield County and New York Short foute Railroad Company. mberland Valley Railroad Company aware and Hudson Canal Company aware Bay and Cape May Railroad Company aware Lackawanna and Western Railroad ompany. aware River Railroad Company. mond Valley Railroad Company ira, Cortland and Northern Railroad Company is a ud Wyoming Valley Railroad Company be and Wyoming Valley Railroad Company da, Johnstown and Gloversville Railroad Com- any. tysburg and Harrisburg Railroad Company tysburg and Harrisburg Railroad Company tysburg and Johnsonville Railway Company.	22. 96 29. 10 144. 93 18. 00 12. 25	17. 00 139. 00 231. 12 22. 88			16.00	12.67	62. 25	3.50	16. 00 12. 67 22. 96 17. 00 29. 10 144. 93 176. 19 3. 50 780. 89 19. 97 12. 25 139. 00 62. 25 231. 12 22. 88 24. 60 14. 65	18.00	7 1 1 1 2 2 1 1 1 1 3 6 2 3 2 2 1 1 1
perstown and Charlotte Valley Railroad Com- any. mwall Railroad Company. mwall and Lebanon Railroad Company. mwall and Lebanon Railroad Company. alersport and Port Allegheny Railroad Com- any. sson, Clearfield County and New York Short koute Railroad Company. mberland Valley Railroad Company. aware Bay and Cape May Railroad Company. aware Bay and Cape May Railroad Company. aware River Railroad Company. aware River Railroad Company. aware River Railroad Company. aira, Cortland and Northern Railroad Company. all Brook Coal Company. l Brook Coal Company. and, Johnstown and Gloversville Railroad Com- any.	22. 96 29. 10 144. 93 18. 00 12. 25	17. 00 139. 00 231. 12 22. 88			16.00	12.67	62. 25	3.50	16. 00 12. 67 22. 96 17. 00 29. 10 144. 93 176. 19 3. 50 780. 89 19. 97 12. 25 139. 00 62. 25 231. 12 22. 88 24. 60 14. 65	18.00	78 14 15 78 23 23 2 2 2 2

TABLE 2.—MILEAGE OPERATED BY EXPRESS COMPANIES ON JUNE 30, 1890, BY ROUTES—Continued.

Part 1.-BY COMPANIES IN EACH GROUP-Continued.

GROUP II—Continued.

A .- MILEAGE OPERATED OVER RAILWAYS-Continued.

ROUTES.	Adams.	Ameri-	Camden and Atlantic.	Long Island.	National.	United States.	Wells, Fargo & Co.'s.	West Jersey.	Total operated mileage.	Dupli- cated mileage.	Net mileage
eeseville, Au Sable Chasm and Lake Champlain					5, 64		·		5, 64	 	5.0
Railroad Company. ackawanna and Southwestern Railroad Com-									20, 00	!	20.
pany. ancaster, Oxford and Southern Railroad Com-		i	1	i	1						
pany. ebanon Springs Railroad Company chigh and Hudson River Railroad Company		;			37.10		77. 20		77. 20	!	57. 77.
shigh Valley Railroad Company	722.00	96. 88					 	٠	818. 88	.· ₁	818.
ong Island Railroad Companyaryland Central Railway Company	84.40			352. 79		·	: 	· • • • • • • • • • • • • • • • • • • •	352. 79 84. 40		352. 84.
iddleburg and Schoharie Railroad Company onongahela River Railroad Company			·	! !	5.75	31.00			5. 75 31. 00	! • • • • • • • • • • • • • • • • • • •	. 5.
ontour Railroad Company ontone Railway Company ont Alto Railroad Company ewburg. Dutchess and Connecticut Railroad		11.00	1		l .	i		İ	11.00		
ontrone Railway Company	28.00 17.80					;			28.00		28 17
ewburg, Dutchess and Connecticut Railroad	17.05	58. 80	••••••		••••••		· · · · · · · · · · · · · · · · · · ·		5H. 80		58
ew Jersey and New York Railroad Company		! <u></u>	!			47.90	! ••••••••	• • • • • • • • • • • • • • • • • • • •		 	47.
ew York and Canada Railroad Company sw York and Greenwood Lake Railway Com-			: 		94. 64	 '		!			94.
											43.
puny. ew York and Massachusetts Railway Company . ew York and Northern Railway Company ew York Central and Hudson River Railroad		34. 99 61. 00			¦				34.99 61.00		34 61
w York Central and Hudson River Railroad Company.		1, 420. 64			148.00		•••••		1, 568. 64	148, 00	1, 420
ew York, Lake Erie and Western Railroad Com-			:			į	1 027 05	!	1, 037, 85		
pany.		1	Į.		1	1	l		l .		1,037
ew York, Ontario and Western Railway ew York, Philadelphia and Norfolk Railroad	111.46			1		!			111.46		424 111
Company. ew York, Susquehanna and Western Railroad		157. 28			<u> </u>	! 	111. 91		269.19	111.91	157.
Company. orthern Central Railroad Company	372, 83				•		i 	:	1		372
nnsylvania Railroad Company		ŀ			1	1		: 1	2, 449, 24	i l	2, 449
ennsylvania and Northwestern Railroad Com-	70. 86	· · · · · · · · · · · · · · · · · · ·		• • • • • • • • • • • • • • • • • • • •	••••••		·				70.
pany. nnsylvania, Poughkeepsie and Boston Railroad	95. 62	! 				: ,			95. 63	: [95
Company. orkiomen Railroad Companyorry County Railroad Company			 		: ••••••	38. 50		! :;	38.50	ļ	38.
erry County Railroad Company	11. 10			·	••••		'	•••••	11.10	·····	11.
niladelphia and Reading Railroad Company niladelphia, Newtown and New York Railroad	· • • • • · • • · • · • · • · • · • · •					843, 10 20, 90			843. 10 20. 90		843. 20.
Company. niladelphia, Wilmington and Baltimore Railroad	533, 93		1		1				533.93		
Company. ort Jervis, Monticello and New York Railroad											
Company. ritan River Railroad Company								· · · · · · · · · · · · · · · · · · ·	1 1		
iritan River Ratiroad Company		•••••	1			15.34			15.34	· · · · · · · · · · · · · · · · · · ·	15.
eading and Columbia Railroad Company ensselaer and Saratoga Railroad Company					194.86	47. 72			47.72 194.86		194
eading and Columbia Railroad Company enseeleer and Saratoga Railroad Company eynoldsville and Falls (reck Railroad Company ekaway Valley Railroad Company one, Watertown and Ogdensburg Railroad Com-		14.50				12.00	·		14.50 12.00		14
ome, Watertown and Ogdensburg Railroad Com-		637.00		•••••					637.00		637
arpaville Railroad Company		20.52			ι.	į		·	20.53		20
lver Lake Railway Company		6.86	¦				`		6.83		6
nnemahoning Valley Railroad Company aneateles Railroad Company aten Island Rapid Transit Railroad Company		5. 00						,;	9.00 5.00		. 9 5
aten Island Rapid Transit Railroad Company	•••••	'		• • • • • • • • • • • • • • • • • • • •	·	22. 40		<u>'</u>	22. 40	•••••	22
ewartstown Railroad Companyony Clove and Catskill Mountain Railroad Com-	7. 20	14.00							7. 20 14. 00		7. 14
pany.									١.		6
racuse and Baldwinsville Railroad Company racuse, Binghamton and New York Railroad						81.00			81.00		81
Company. oga Railroad							64.72	,	64.72		64
nawanda Valley and Cuba Railroad Company						30.00			30.00		30
ster and Delaware Railroad Company	. .	77. 61							77. 61	·	49 77
nion Transportation Company	24.47	••••••	••••••	• • • • • • • • • • • • • • • • • • • •	•••••	•••••	• • • • • • • • • • • • • • • • • • • •		24. 47		24
allkill Valley Railroad Companyaynesburg and Washington Railroad Company.	2x 15										35 25
estern New York and Pennsylvania Railroad	124, 10								124. 10		12
company.		W8. 80	••••••			•••••			05.50		63:
	64.00							221. 59	285. 59	64. 00	22
est Jersey Railroad Company	.,										
est Jersey Railroad Company. Himmsport and North Branch Railroad Com- lany. Ilmington and Northern Railroad Company ilkesbarre and Western Railway Company	. . 					27. 00					27

TABLE 2.—MILEAGE OPERATED BY EXPRESS COMPANIES ON JUNE 30, 1890, BY ROUTES—Continued.

Part 1.-BY COMPANIES IN EACH GROUP-Continued.

GROUP II—Continued.

B.-MILEAGE OPERATED OVER WATER LINES.

ROULES.	Adams.	Ameri- can.	Camden and Atlantic.	Long Island.	National.	United States.	Wells, Fargo & Co.'s.	West Jersey.	Total operated mileage.	Dupli- cated mileage.	Net mileage.
Total mileage operated over water lines in Group II.	399. 00	288. 00			231.00	290.00		l	1, 208. 00	82. 00	1, 126. 00
Baltimore Steam Packet Company	290.00						j				200.00
Canandaigua lake steamers		25.00		• • • • • • • • • •		• • • • • • • • • •	<u> </u>		25.00		25.00
Cape Vincent and Kingston Line		20.00			.	*********			40.00		20.0
Charlotte and Point Hope Line	•••••					40.00			40.00 65.00		40.0
Juariotte and Point Hope Line		05.00		· · · · · · · · · · · · ·					05.00		65.00
Chester River Steamboat Company		!	1			85.00			65, 00		65.00
Choptank Steamboat Company	•••••					100.00			100.00	1	100.0
Keuka Lake Steamboat Company									65.00	42.00	23.0
Lake Champlain Transportation Company	20.00	22.00							88.00	40.00	88.0
banko enampiata zransportanton company	•••••			• • • • • • • • • • • • • • • • • • • •		•••••			1 00.00	!	00.0
Maryland Steam Packet Company	100 00	!							100, 00		100.0
New York, Philadelphia and Norfolk Railroad											36.0
Company.	00.00				1	· · · · · · · · · · · · · · · ·			55.55	li	00.0
Ordenshurg and Prescott Line		2 00						!	2.00	!	2.0
Ogdensburg and Prescott Line	•••••	2.00			143 00	•••••	1		143.00		143.0
copie a mile accumentation	•••••				120.00	• • • • • • • • • • • • • • • • • • • •			140.00		i 140.0
Rondout Line steamers		90.00			'		l		- 90.00	1	90.0
Salem and Philadelphia Steamboat line											65.0
Seneca Lake steamers	40 00	40.00				30.00	,			40.00	40.0
Thousand Islands Steamboat Company									24.00	20.00	24. 0
	С.—М	ILEAGE	OPERAT		R STAGE	LINES.	<u> </u>	!		11.	<u> </u>
Total mileage operated over stage lines in . Group II.		8. 00							3.00		3. 0
Lines in New York	•••••	3. 00							3. 00		3.00
	DM1	ILEAGE	OPERATI	ED OVER	ALL LI	NES.					
Cotal express mileage in Group II	. 401 00	4, 859, 00	78. 93	250 50	1, 186, 00	4, 529, 00	1, 548, 00	245, 06	19,279,78	700 01	18, 550, 8

GROUP III.

ROUTES.	Adams.	American.	Cincinnati, George- town and Ports- mouth.	Pacific.	United States.	Wells, Fargo & Co.'s.	Total operated mileage.	Dupli- cated mileage.	Net mileage.
Total mileage operated over railways in Group III			42.00		5, 129. 75	1, 450. 00	21, 762. 50	1, 258. 05	
Baltimore and Ohio Railroad Company (west of Ohio river) Baltimore and Ohio Southwestern Railroad Company Bellaire, Zaneaville and Cincinnati Railroad Company Chautauqua Lake Railway Company Chicago and Atlantic Railway Company	110. 75	23. 85			577. 00 282. 03	288 40	577. 00 282. 03 110. 75 23. 85		577. 00 282. 02 110. 75 23. 85 268. 40
Chicago and Grand Trunk Railway Company	532. 15	44. 20					408. 40 44. 20 532. 15		335, 27 408, 40 44, 20 532, 11 148, 41
Cincinnati, Georgetown and Portsmouth Railroad Company Cincinnati, Hamilton and Dayton Railroad Company Cincinnati, Jackson and Mackinaw Railroad Company Cincinnati, Lebanon and Northern Railway Company Cincinnati Northwestern Railroad Company	·	37.65	1		1	'	359, 80 349, 10 37, 65	13.00	42. 00 346. 80 349. 10 37. 60 6. 50
Cincinnati, Saginaw and Mackinaw Railroad Company Cincinnati, Sandusky and Cleveland Railway Company Cincinnati, Wabash and Michigan Railway Company Cleveland and Cantou Railroad Company Cleveland and Marietta Railroad Company		196, 45			190. 81 166. 00		190. 81 166. 00 196. 45		
Cleveland and Western Railroad Company	193, 85 462, 00	810. 55					193, 85 1, 272, 55	462.00	56. 00 193. 85 810. 55
Columbia and Cincinnati Midland Railroad Company	317. 27	123. 00	· · · · · · · · · · · · · · · · · · ·	 	71. 20		71. 20 440. 27	123, 00 66, 30	71. 20 317. 21
Dayton and Union Railway Company Dayton, Fort Wayne and Chicago Railway Company Detroit Ray City and Abena Railroad Company		99. 00 232. 98			46. 69 260. 70		46. 69 359. 70		46. 69 260. 70
Detroit, Grand Haven and Milwaukee Railway Company Detroit, Lansing and Northern Railroad Company Dunkirk, Allegheuy Valley and Pittsburg Railroad Company Evansville and Terro Haute Railroad Company Findlay, Fort Wayne and Western Railroad Company.		323, 68 90, 60					323, 68 90, 60		164.13

TABLE 2.—MILEAGE OPERATED BY EXPRESS COMPANIES ON JUNE 30, 1890, BY ROUTES—Continued.

Part 1.-BY COMPANIES IN EACH GROUP-Continued.

GROUP III—Continued.

A .- MILEAGE OPERATED OVER RAILWAYS-Continued.

ROUTES.	Adams.	Ameri- can.	Cincinnati, George- town and Ports- mouth.	Pacific.	United States.	Wells. Fargo & Co.'s.	Total operated mileage.	Dupli- cated mileage.	Net mileuge.
lint and Pere Marquette Railroad Company		649. 94				 i	649. 94		649.9
ort Wayne, Cincinnati and Louisville Railway Company		132. 70 26. 95	` 		i		132. 70 26. 95		132.7 26.9
rankfort and Southeastern Railroad Company rand Rapids and Indiana Railroad Company rand Trunk Railway Company	584. 17	105 80					584. 17	1	584.
		ı	1			, (Ï	
Iancock and Calumet Railroad Companyndiana and Illinois Southern Railroad Company	90.00		! 		!				
ndiana, Illinois and Iowa Railroad Company. 		70 75			118.00		118. 00 153. 50		118. 76.
ake Erie and Western Railroad Company		10. 15		' 	585. 84			76. 75	
ake Erie, Alliance and Southern Railway Company Ake Shore and Michigan Southern Railway Company Ake Side and Marblehead Railroad Company Oulsville, Evansville and St. Louis Consolidated Railroad Com-	61.00					İ	61.00	1	61.
ake Shore and Michigan Southern Railway Company	•••••	339 . 00		•••••	1, 338, 06		1, 677. 06 7. 35	339.00	1,338.
ouisville, Evansville and St. Louis Consolidated Railroad Com-	i				297. 02		297.02		297.
pany. ouisville, New Albany and Chicago Railway Company							537. 07		537.
uniaville New Albany and Countyles Dailyand County	1				10 50				!
Innistee and Northeastern Railroad Company		69. 71	;		12. 50		69, 71		i 69.
leadville and Linesville Railway Company	20.50	a1.529 AF			'		20,50 a1,529 68	,	20. 41, 529.
ouisville, New Albany and Corydon Railroad Company					74.00		74.00	• • • • • • • • • •	14.
Ineral Range Railroad Company ew York, Chicago and St. Louis Railroad Company ew York, Lake Erie and Western Railroad Company (west of	İ	17.00	!	j 	l. 	·	17. 00	h 	17.
lew York, Chicago and St. Louis Railroad Company	'	523. 02	•••••		ı	596 50	523. 02 596. 50	1	523. 596,
									!
Salamanda, hio and Mississippi Railroad Company (east of Vincennes) hio and Northwestern Railroad Company	252. 96 111. 50			!			252. 96 111. 50		252. 111.
ohio Sonthern Railroad Company					118 95	:	118 95	4	118.
ennsylvania Company	1, 363. 48						1, 363. 48	!	1, 363.
ittsburg and Lake Erie Railroad Companyittsburg and Western Railway Company		163.72			56.00	289. 18	163.72 345.18		163. 345.
ittsburg, Cincinnati and St. Louis Railroad Company	465. 46						465. 46		465.
ittsburg, Marion and Chicago Railroad Company	25. 00	· · · · · · · · · · · · · · · · · · ·	 				25.00		25.
ittsburg, Shenango and Lake Eric Railroad Company	83. 40	100 90		· • • • • • • • • • • • • • • • • • • •	· · · · · · · · · · · · · · · · · · ·	,	83.40 100.20	į	83. 100.
aginaw, Tuscola and Huron Railroad Company		66.57			· • • • • • • • • • • • • • • • • • • •		66. 57		66.
t. Clairsville and Northern Ranway Company		3. 40					3. 40		3.
t. Joseph Valley Railway Company	128 74	10. 00		• • • • • • • • • • • • • • • • • • • •	····		10.00		10. 1 28 .
erre Haute and Indianapolis Railroad Company (in Indiana)	79.00	262. 60				<u> </u>	341.60	79.00	262.
oledo and Ohio Central Railway Company	49.00 ·				235.45	····	235. 45		40. 235.
oledo and Ohio Central Extension Railroad Company					45.00		45 (0)		45.
oledo and Ohio Central Extension Railroad Company oledo and South Haven Railroad Company oledo, Ann Arbor and North Michigan Railway Company oledo, Columbus and Cincinnati Railroad Company		37.00	, · · · · · · · · · · · · · · ·				37.00		37.
oledo, Ann Arbor and North Michigan Rahway Company oledo, Columbus and Cincinnati Railroad Company		286,00				72. 37	286.00 72.37		286. 72.
ulada Saginaw and Muslawan Pailward Company		116 00				. !	116 00		116.
oledo, St. Louis and Kansas City Railroad Company alley Railroad Company of Ohio	•••••	450.72	;		· • • • • • • • • • • • • • • • • • • •		450. 72		450.
alley Railroad Company of Onio		87.68		479.00		·	479.00	i	. 87. 479.
Verren and Vernsworth Railroad Company	15. 26						15. 26		15.
Varren and Farnsworth Railroad Company Vheeling and Lake Eric Railway Company Vhite Water Railroad Company Spacesilla and Ohio River Railroad Company		60.40		· · · · · · · · · · · · · · · · · · ·		223. 55	223. 55		22 3.
anesville and Ohio River Railroad Company	73. 64	02.40					73. 64		62. 73.
	į.					<u>.</u>		<u> </u>	
a 1	Includes 30	0.30 miles	of line in Ca	nada.					
B.—MILEAG	E OPERA	ATED OV	ER WATE	R LINES	•		•		
Total mileage operated over water lines in Group III	746.00	300.00	ļ				1, 046. 00		1, 046.
etroit, Grand Haven and Milwaukee Railway Company		85.00		'		i	85, 00	· ·	85.
etroit and Cleveland Navigation Company		120.00					120,00		120.
ake Michigan and Lake Superior Transportation Company ittsburg and Cairo lines		₩ 3. 00					96.00 746.00		95. 746.
		1 TED 0	UND OF ACT	P LTMP	·	<u>: []</u>		i	
CMILEAC		ATED 0	VER STAG	e lines.		11		1	
Total mileage operated over stage lines in Group III	55.00	6. 00		••••••		·	61.00		61.
Total mineral officers of the state of the s	i –								
ines in Indiana	 19.00 9.00	6, 00	,				25. 00 9. 00		25. 9.

D.-MILEAGE OPERATED OVER ALL LINES.

479.00 5, 129.75 1, 450.00 22, 869.50 1, 258.05 21, 611, 45

TABLE 2.-MILEAGE OPERATED BY EXPRESS COMPANIES ON JUNE 30, 1890, BY ROUTES-Continued.

Part 1.-BY COMPANIES IN EACH GROUP-Continued.

GROUP IV.

A.-MILEAGE OPERATED OVER RAILWAYS.

ROUTES.	Adams.	Southern.	United States.	Total operated mileage.	Duplicated mileage	Net mileage.
Total mileage operated over railways in Group IV		6, 435. 00	540.00	8, 525. 50	51. 57	8, 473. 1
tlantic and Danville Railway Company		218 00				218. (
tlantic and North Carolina Railroad Company	. ' .	95.00	İ	95.00		95. (
tlantic Coast Line Association		952.14		952. 14	, <u>-</u> ,	952.
altimore and Ohio Railroad Company (south of Harper's Ferry, W. Va.)arnwell Railway Company	•••••	0.00	101. 63	101.63		101. 9 .
all well mail way company	· · · · · · · · · · · · · · · · · · ·	8.00		B. 00		₹.
ishopville Railroad Company		15.00		15.00		15.
lackville, Alston and Newberry Railroad Company		30.00	j'	30.00		30.
ape Fear and Yadkin Valley Railway Company		338, 05		338.05		338. 267.
arolina Central Railroad Company		120.60		120, 60		120.
• • •				1	1	
harleston, Cincinnati and Chicago Railroad Company		156. 29]. 	156, 29		156.
harleston, Sumter and Northern Railroad Company	510.00	70.75	311. 67	70.75	51. 57	70. 770.
harreston, Sumer and Northern Ambudt Company heappeake and Ohio Railway Company (east of Huntington, W. Va.) hanville and New River Railroad Company.	510.00	83.00	311.07	83.00	31.31	83.
urham and Northern Railway Company		41.00		41.00		41.
177 / 701 10	1		1 1		i	
eorgetown and Western Railroad Company eorgia, Caroliua and Northern Railway Company		36.00				36. 62.
reen Pond. Walterboro and Branchville Railway Company	· · · · · · · · · · · · · · · · · · ·	12.00				12.
reen Pond, Walterboro and Branchville Railway Company amesville and Washington Railroad Company		22.57		22. 57		22.
(anawha and Michigan Railroad Company (south of Ohio river)	· • • • • • • • • • • • • • • • • • • •	<u>'</u>	64. 70	64. 70		64.
ynchburg and Durham Railroad Company	1	84.00	!	94.00		84.
orfolk and Virginia Beach Railroad Company		17. 90				17.
orfolk and Wastern Railroad Company		559 00		559.00	l) i	559.
orfolk Southern Railroad Company		74.02		74.02		74.
hio River Railroad Company	215.00	1	j	215.00		215.
almetto Railroad Company		18. 20		18, 20	i	18.
ort Royal and Augusta Railway Company		112.00	i	112.00	1	112.
ort Royal and Western Carolina Railway Company				228.60		228.
aleigh and Augusta Air Line Railroad Companyaleigh and Gaston Railroad Company		129. 27		129.27		129. 107.
	ı		1		11 [101.
ichmond and Danville Railroad Company (east of Atlanta, Ga.) ichmond, Fredericksburg and Potomac Railroad Company eaboard and Roanoke Railroad Company	335. 50	2, 123. 00	'l	2, 458. 50		2, 458.
cichmond, Fredericksburg and Potomac Railroad Company	81.70			81.70		81.
Paboard and Roanoke Kaliroad Company	948 19	113.00	;	946 19	'	113. 246.
benandoah Valley Railroad Company outh Atlantic and Ohio Railroad Company		54.82		54. 82		54.
					!! !	
outh Carolina Railway Company		. 246,00		246.00	ļ''	246.
aney Kauroau Company of Virginia	33 60		02.00	33.60		62. 33.
est Virginia Central and Pittsburg Railway Company	128.58			128. 58		128.
outh Carolina Railway Company alley Railroad Company of Virginia Vashington Southern Railway Company Vest Virginia Central and Pittsburg Railway Company Vilmington, Chadbourne and Conway Railroad Company		39. 17	[39. 17	,i	39.
DMILEAGE OPERATED O			1	<u> </u>	li!	
otal express mileage in Group IV		,	1	1	<u> </u>	

a No mileage over water and stage lines in this group.

GROUP V.

		<u></u>					
ROUTES.	Adams.	Pacific.	Southern.	United States.	Total operated mileage.	Duplicated mileage.	Net mileage.
Total mileage operated over railways in Group V			12, 898. 00		16, 524. 84	1, 060. 84	15, 463, 64
Alabama and Vicksburg Railway Company. Alabama Great Southern Railroad Company. Alabama Midland Railroad Company. Anniston and Atlantic Railroad Company Anniston and Cincinnati Railroad Company.			207. 72 52. 36	142. 60 295. 00	142. 60 295, 00 207. 72 52. 36		142. 60 295. 00 207. 72 52. 36
Atlanta and Florida Railroad Company. Atlanta and West Point Railroad Company Atlantic and Western Railroad Company (of Florida). Augusta, Gibson and Sandersville Railroad Company Birmingham Mineral Railroad Company			86, 11 30, 00 80, 00		86. 11 30. 00 80. 00		86. 11 30, 60 80, 00
Birmingham, Sheffield and Tennessee River Railway Company. Blue Ridge and Atlantic Railroad Company Brunswick and Western Railroad Company Central Railroad and Banking Company of Georgia Chattanooga, Rome and Columbus Railroad Company			20. 90 171. 00 1, 317. 46	140.00	20.90 171.00 1,317.46	140.00	20. 90 171. 00 1, 317. 46
Chesapeake and Nashville Railway Company	161. 50 17. 00		398. 48	l	161.50 398.48 17.00		161.50 898.48 17.00

TABLE 2.—MILEAGE OPERATED BY EXPRESS COMPANIES ON JUNE 30, 1890, BY ROUTES—Continued.

Part 1.—BY COMPANIES IN EACH GROUP—Continued.

GROUP V-Continued.

A .- MILEAGE OPERATED OVER RAILWAYS-Continued.

ROUTES.	Adams.	Pacific.	Southern.	United States.	Total operated mileage.	Duplicated mileage.	Net mileage.
covington and Macon Railroad Company. ast and West Railroad Company of Alabama. ast Tennessee, Virginia and Georgia Railway Company. Elizabethtown, Lexington and Big Sandy Railroad Company. Iorida Central and Peninsular Railroad Company.			107. 00		107.00		107.
ast and West Railroad Company of Alabama		<u> </u>	117.60		117, 60		117.
ast Tennessee, Virginia and Georgia Railway Company			1, 197, 50	68, 00	1, 265, 50	68.00	1, 197.
lizabethtown, Lexington and Big Sandy Railroad Company	139.69				139.69		139.
lorida Central and Peninsular Railroad Company	`	¦	598.00		598. 00		59 6.
				i i	915 51	'	945
Torida Southern Railway Company (including Charlotte Harbor division)		j	240.01		245, 51 307, 00		245. 307.
eorgia Railroad Company			00 90		99, 20		99.
eorgia Southern and Florida Railroad Company			285.00		285. 00		285.
eorgia Southern and Florida Railroad Company llinois Central Railroad Company (south of Ohio river)			894.41		894. 41		894.
	1			! '			•
acksonville, St. Augustine and Halifax River Railway acksonville, Tampa and Key West Railway Company. (ansas City, Memphis and Birmingham Railroad Company centucky Central Railway Company Centucky Midland Railway Company	·	• • • • • • • • • • • • • • • • • • • •	37. 03	j			37.
acksonville, Tampa and Key West Railway Company	• • • • • • • • • • • • • • • • • • • •		200.00		200.00		200.
ansas City, Memphis and Birmingham Railroad Company			276, 57		276. 57		276.
entucky Central Railway Company	203. 81			40.00			253. 40.
Entucky Michaela Itanway Company	,			10.00	20.00	***********	₩.
Centucky Union Railway Company	70.00	l 	l. 	l	70, 00		70.
Inoxville and Ohio Railroad Company			60,00		60.00	!	60.
Inoxville, Cumberland Gap and Louisville Railroad Company			73.00		73.00		73.
ouisville and Nashville Railroad Company (south of Ohio river)	752. 84		1, 342. 48	1	2, 095. 32	752. 84	1, 342.
ouisville and Wadley Railroad Company			10.00		10.00		10.
ouisville, New Orleans and Texas Railway Company	1	050.00	100.00	1 1	· 850 00	100 00	
ouisville, New Orleans and Texas Railway Company		056.98	100.00	149.00	756. 98	100.00	656.
onisville Southern Pailmay Company				142.00 37.00			142. 37.
Semulia and Charleston Railmond Company			330.00	37.00	330.00		330.
Johile and Birmingham Railway Company			163.00		163.00		163
	l			1			
fobile and Northwestern Railroad Company fobile and Ohio Railroad Company (south of Cairo, Ill.) sashville and Knosville Railroad Company sashville, Chattanooga and St. Louis Railway Company lew Orleans and Northeastern Railroad Company		31.00			31.00		31.
Iobile and Ohio Railroad Company (south of Cairo, Ill.)			526.00		526,00		526 .
ashville and Knoxville Railroad Company	·		48.00		48.00		48.
ashville, Chattanooga and St. Louis Railway Company	• • • • • • • • • • • • • • • • • • • •		652. 17		652. 17		652.
ew Orleans and Northeastern Railroad Company				195, 90	195, 90		19 5.
thin and Rig Sandy Railroad Company	48 29			1	48 29	i	48.
phio Valley Railway Company			108. 13		108, 13	1	108.
range Belt Railway Company			152, 30		152, 30		152
wensboro, Falls of Rough and Green River Railroad	28.00				28.00		28.
phio and Big Sandy Railroad Company phio Valley Railway Company range Belt Railway Company wensboro, Falls of Rough and Green River Railroad lichmond and Danville Railroad Company (west of Atlanta, Ga.)	<u>'</u>	ļ	566.39		566.39]	566.
D-11 1 (-6 ()	ļ	1	200.00		22. 00		22
and waville and Tennille Reilway Company			3 50		8. 50		3.
evennah Americus and Montgomery Railway Company			173.00		173.00		173
avannah, Florida and Western Railway Company		·	569.00		569.00		589.
tome Railroad (of Georgia) andersville and Tennille Railway Company avannah, Americus and Montgomery Railway Company avannah, Florida and Western Railway Company onth Florida Railroad Company			214.96		214.96		214.
	1	ł	i	1		1	
ylvania Railroad Company		;	15.00		15. 00		15.
alladega and Coosa Valley Railroad Company		,	24.90		24. 90		24.
avares and Guif Railroad Company			28.00		28.00		28. 33.
ylvania Railroad Company. alladega and Coosa Valley Railroad Company. avares and Gulf Railroad Company. avares, Orlando and Atlantic Railroad Company. ennessee Midland Railroad Company.			198 00		138.00		33. 136.
canosaco midiana mantoaa comban'i			1.00.00		100.00		130
roy and Tiptonville Railroad Company	. 	, 	4. 60	!	4. 60	Í [.] '	4.
uskegee Railroad Company			5. 50		5. 50		5.
Vestern and Atlantic Railroad Company			138.00		138.00		138.
roy and Tiptonville Railroad Company uskegee Railroad Company. Vestern and Atlantic Railroad Company Vestern Railway Company of Alabama	'	:	132. 01				132.
C.—MILEAGE OPER.			<u> </u>			1	
Total mileage operated over stage lines in Group V					122. 00		122
ines in Kentucky	122. 00			-	122. 00		
DMILEAGE OPERA	ATED OVE	R ALL LI	NES. (a)	1 1			
otal express mileage in Group V	1, 629. 00			1, 431. 50	· · · · · · · · · · · · · · · · · · ·	1, 060, 84	15, 585.

 $[\]boldsymbol{a}$ No mileage over water lines in this group.

TABLE 2.-MILEAGE OPERATED BY EXPRESS COMPANIES ON JUNE 30, 1890, BY ROUTES-Continued

Part 1.-BY COMPANIES IN EACH GROUP-Continued.

GROUP VI.

ROUTES.	Adams.	Ameri- can.	Northern Pacific.	Pacific.	Southern.	United States.	Wells, Fargo & Co.'s.	Total operated mileage.	Dupli- cated mileage.	Not mileage.
Total mileage operated over railways in Group VI	5, 103. 00	20, 540. 03	2, 388. 14	1, 951. 00	152.00	6, 986. 25	728.00	37, 848. 42	745.36	37, 103. 06
Abbotsford and Northeastern Railroad Company			15.00				613. 75			15. 00 613. 75
Kansas city, Mo). Burlington, Cedar Rapids and Northern Railway Company Cedar Rapids and Marion Railway Company Centralia and Chester Railroad Company	8. 50	6.00				1, 046. 40		1, 046, 40 6, 00 8, 50		6,00
Centreville, Moravia and Albia Railread Company		435. 75 77. 36				24. 10 848. 68		24. 10 848. 68 435. 75 77. 36		24. 10 848. 68 435. 75 77. 36
Chicago and Northwestern Railway Company									1	4, 218. 66 86. 00 220. 10
Chicago, Burlington and Northern Railroad Company of Wisconsin and Minnesota. Chicago, Burlington and Quincy Railroad Company (east of Missouri river).		371. 11 2, 171. 70					114. 25	371. 11 2, 285. 95		371.11 2,171.70
Chicago, Fort Madison and Des Moines Railway Company		1			II.	1		45.00 26.50	161.08	45.00 26.50 5,685,92
Chicago, Iowa and Dakota Railway Company. Chicago, Milwaukee and St. Paul Railway Company. Chicago, Peoria and St. Louis Railway Company. Chicago, Rock Island and Pacific Railway Company (east of Missouri river).										120.00 1,588.80
Chicago, St. Paul and Kansas City Railway Company Chicago, St. Paul, Minneapolis and Omaha Railway Company (east of Missouri river).		1, 148. 2i					ļ	1, 148. 21	1	1, 148. 21
Cleveland, Cincinnati, Chicago and St. Louis Railway Com- pany (west of Terre Haute). Des Moines and Kansas City Railway Company	213. 68	270. 00 112. 00				41. 61 114. 00		483. 68 112. 00 41. 61 114. 00		
Dubuque and Sioux City Railroad Company		599. 59 24. 63 558. 77				127. 05		599. 59 127. 05 24. 63 558. 77		500, 50 127, 06 24, 65 558, 77
Eastern Railway Company of Minnesota	32. 90	185. 26				130.00		185. 26 130. 00 61. 00 32. 90		185. 20 120. 00 61. 00 32. 90
Green Bay, Winona and St. Paul Railway Company		2, 211. 95 295. 24 112. 53				249, 60		2, 211, 95 249, 60 295, 24 112, 53		
Illinois). Iowa Central Railway Company				. 		488. 40	 	488, 40	l'	1, 381, 18 75, 70
Jacksonville Southeastern Railway Company	134.30	42.08 307.99		147. 70				184. 30 42. 08 307. 99 147. 70		307. 98 147. 78
Louisville and Nashville Railroad Company (north of Ohio	208.00		·	1	1		1	51.65 208.00		51. 45 208. 99
mason City and Fort Dodge Railroad Company						623,00		623, 00		92. 00 339. 45 623. 96 367. 70
Minneapolis, St. Paul and Sault Ste. Marie Railway Com- pany. Mobile and Ohio Reilroud Company (north of Cairo)								805.35		905. 25 152. 9 0
pany. Mobile and Ohio Railroad Company (north of Cairo) Northern Pacific Railroad Company (east of Montana) Ohio and Mississippi Railway Company (west of Vincennes). Omaha and St. Louis Railway Company	375. 52		1, 596. 14	145. 00	102.00			1, 596, 14 375, 52 145, 00		1,59 6 .14 375.52
Ottumwa and Kirkville Railway Company	114.00	. 6.61 18.00	: 		· i · · · · · · · · · ·			6, 61 18, 00		6. 61 18. 00 267. 41
Rock Island and Peoria Railway Company'			· i						81. 75 96. 00	113.00 45.00 81.78
St. Louis, Alton and Terre Haute Railway Company St. Louis, Keokuk and Northwestern Railway Company St. Paul and Duluth Railroad Company Sault Sto. Marie and Southwestern Railway Company	239.04	227 20			 			227.80 247.75		227. 80 247. 75

TABLE 2.—MILEAGE OPERATED BY EXPRESS COMPANIES ON JUNE 30, 1890, BY ROUTES—Continued.

Part 1.-BY COMPANIES IN EACH GROUP-Continued.

GROUP VI-Continued.

ROUTES.	Adams.	Ameri- can.	Northern Pacific.	Pacific.	Southern.	United States.	Wells, Fargo & Co.'s.	Total operated mileage.	Dupli- cated mileage.	Net mileage.
Tabor and Northern Railroad Company Terre Haute and Indianapolis Railroad Company (in Illinois). Terre Haute and Peoria Railroad Company	158.30							8. 79 158. 30 172. 90		. 8. 79 . 158, 20 . 172, 90
Toledo, Peoria and Western Railroad Company	247. 10	131. 52	.l	1, 343. 02			 	247. 10 1, 474. 54	131.52	247.10
Wabash, Chester and Western Railroad Company	1	146 91			(1		148 91		42. 26 146. 91 777. 00
Wisconsin Central Railroad Company Wisconsin, Minnesota and Pacific Railway Company	- <u></u>	. 	· · · · · · · · · · · · · · · · · · ·	.¦	·····	216.60		216. 60		. 216.60
С.—М	IILEAGE	OPERA?	TED OVE	R STAGE	LINES.					
Total mileage operated over stage lines in Group VI	4.00									35.00
Lines in Iowa Lines in Illinois Lines in Missouri	4.00	26, 00						26. 00 4. 00	1	26. 00 4. 00 5. 00
DM	ILEAGE	OPERAT	ED OVE	R ALL LI	NES. (a)	· <u></u>			•	•
Total express mileage in Group VI	5, 107. 00	20, 571. 03	2, 388. 14	1, 951. 00	152, 00	6, 986. 25	728.00	37, 883. 42	745. 36	37, 138, ce
	a No milea	ge over w	ater lines	in this gro	np.	·				
		GRO	UP VII.							
Δ1	MILEAGI	E OPERA	TED OVE	ER RAILV	VAYS.					
ROUTES.		A	merican.	Northern Pacific.	Pacific	Well Fargo	δε ope		nplicated	Net mileage.

ROUTES.	American.	Northern Pacific.	Pacific.	Wells, Fargo & Co.'s.	Total operated mileage.	Duplicated mileage.	Net mileage.
Total mileage operated over railways in Group VII	755. 22	1, 228. 86	2, 305. 49	4, 495. 71			8, 785. 28
Carbon Cut-off Railroad Company. Chicago, Burlington and Quincy Railroad Company (west of Missouri river) Chicago, St. Paul, Minneapolis and Omaha Railway Company (west of Mis-		1		2. MOO. 82	19. 17 2, 955. 82	,	19. 17 2, 955, 82
souri river.) Denver and Boulder Valley Railroad Company			26. 97	1, 298. 77			26. 97 1, 298. 77
Great Northern Railway Company (west of Minot, N. Dak.) Kansas City and Omaha Railroad Company Laramie, North Park and Pacific Railroad and Telegraph Company Montana Central Railway Company			19 10		19 10	:	13. 19
Northern Pacific Railroad Company (in Montana and Idaho)		1, 228. 86			1, 228, 86		72. 21 1, 228. 86
Omaha and Republican Valley Raifroad Company 3t. Joseph and Grand Island Raifroad Company Union Pacific Railway Company (north of Kansas)			576. 33 252. 52		576.33 252.52		576 33
DMILEAGE OPEI	ATED OVE	ER ALL LI	NES. (a)	·	<u> </u>	·	
Total express mileage in Gronp VII	755, 22	1, 228. 86	2, 305. 49	4, 495, 71	9, 785. 28		8, 783.2

a No mileage over water and stage lines in this group.

TABLE 2.—MILEAGE OPERATED BY EXPRESS COMPANIES ON JUNE 30, 1890, BY ROUTES—Continued.

Part 1.-BY COMPANIES IN EACH GROUP-Continued.

GROUP VIII.

A.-MILEAGE OPERATED OVER RAILWAYS.

ROUTES.	Adams.	Denver and Rio Grande.	Pacific.	Southern.	United States.	Wells, Fargo & Co.'s.	Total operated mileage.	Dupli- cated mileage.	Net
Total mileage operated over railways in Group VIII	2, 205. 00	1.687.00	9, 101. 23	1, 201. 00	1, 765. 00	4, 195. 31	20, 154. 54	153. 68	20, 000. 8
Arkansas Midland Railway Company				48.70			48. 70		48.7
Atchison, Topeka and Santa Fe Railroad Company (west of Missouri river).	· · · · · · · · · · · · · · · · · · ·		· · · · · · · · · · · · ·			3, 968. 44	3, 968. 44		
Atlantic and Pacific Railroad Company (Central division)					. 	112.05	112.05		112.0
souri river). tlantic and Pacific Railroad Company (Central division)	104. 38		280 00	- -	•••••		104. 38		104. 3 388. 0
Bustan Dranch Chion Tacine Raintone Company	• • • • • • • • • • • • • • • • • • • •		300.00		• • • • • • • • • • • • • • • • • • • •		366.00		588. U
bicago, Rock Island and Pacific Railway Company (west of Missouri river).	· · · · · · · · · · · · · · · · · · ·			<u> </u>	1, 733. 00		1, 733. 00		1, 733.0
Choctaw Coal and Railway Company	31.00	 	· · · · · · · · · · · · ·						
Colorado Midland Railway Company		287. 70	· • • • • • • • • • • • • • • • • • • •		• • • • • • • • •		287.70		287. 7
souri river). Choctaw Coal and Railway Company Colorado Midland Railway Company Current River Railroad Company Conver and Rio Grande Railroad Company		1, 399, 30		81.95			81.95 1,399,30		81. 9 1, 399. 3
Denver, Leadville and Gunnison Railway Company. Lureka Springs Railway Company (Arkansas and Missouri) Lort Worth and Rio Grande Railway Company Lutchinson and Southern Railroad Company unction City and Fort Kearney Railway Company	10 50		324.03		• • · • • • • • · ·	['	324.03	<u> </u>	324.
Fort Worth and Rio Grande Railway Company	18. 30	•••••	90.92	;			90.92		18. 8 90. 9
lutchinson and Southern Railroad Company		·			32.00		32. 00		32. 0
unction City and Fort Kearney Railway Company	• • • • • • • • • • • • • • • • • • • •	· · · · · · · · · · · · · · · · · · ·	87. 80	`	• • • • • • • • •		87. 80	·	87.8
Cansas Central Railroad Company			166, 22			l	166, 22	:	166.
ansas City and Southern Railway Company			115.00		•••••		115.00	1	115.
Cansas City, Clinton and Springfield Railway Company	162. 63				• • • • • • • • • • • • • • • • • • • •		162, 63 693, 03	22. 43	162. 670.
Lansas City, Clinton and Springfield Railway Company	34. 10			283.30				22. 40	
									Ì
Lansas City, Wyandotte and Northwestern Railroad Company	•••••		234.80 58.08		•••••		234.80 58.08		234. 56.
little Rock and Memphis Railroad Company			131. 25	131. 25			262. 50	131.25	131.
Kansas City. Wyandotte and Northwestern Railroad Companyeavenworth, Topeka and Southwestern Railway Companylitle Rock and Memphis Railroad Companydispouri, Alma and Burlingame Railway Companydispouri, Kansas and Texas Railway Company (north of Denisor Company)	•••••		000 E0		• • • • • • • • • • • • • • • • • • •	56. 62	56. 62		56.
BUIL, ICX.)		i		1 1		1 1	896.36		OP0.
dissouri Pacific Railway Company tt. Louis and San Francisco Railway Company tt. Louis, Arkansas and Texas Railway Company (in Arkansas			3. 119. 00				3 119 00		3, 119,
t. Louis and San Francisco Railway Company	1, 329, 47				• • • • • • • • • • • • • • • • • • • •		1, 329, 47		1, 239.
t. Louis, Arkansas and Texas Railway Company (in Arkansas	• • • • • • • • • • • • • • • • • • •	· · · · · · · · · · · · · · · · · · ·	• • • • • • • • • •	581.80	· · · · · · · · · · · ·		. 581.80	·····	581.
and Missouri). it. Louis, Iron Mountain and Southern Railway Company it. Louis, Kansas City and Colorado Railroad Company			1, 545, 00			l. 	1, 545, 00	1 	1, 545.
t. Louis, Kansas City and Colorado Railroad Company						58. 20	58. 20		58.
aling and Southwestern Railway Company			63 15				R2 15		63.
alina and Southwestern Railway Company			57.04	!	• • • • • • • • • • • • • • • • • • •		57.04		57.
outh Park and Leadville Short Line Railroad Company			7. 37			[:]	7. 37	¶ 	7.
nion racine Railway Company (in Kansas and Colorado)	• • • • • • • • • •		074.87		• • • • • • • • •		674.87]	
nion Pacific, Denver and Gulf Railway Company			916.68			. 	916.68	 	916.
Union Pacific, Lincoln and Colorado Railway Company	• • • • • • • • • •		225. 44		· • • • • • • • •		225. 44		225. 64.
Inion Pacific, Denver and Gulf Railway Company Inion Pacific, Lincoln and Colorado Railway Company White and Black River Valley Railway Company Vichita and Western Railway Company	125, 19			04.00			125, 19		125.
								¶	
D-MILEA	3E OPER	ATED OV	ER ALL	LINES. (a))				
Cotal express mileage in Group VIII		·				4, 195. 31	1	1	20, 000.

a No mileage over water and stage lines in this group.

TABLE 2.-MILEAGE OPERATED BY EXPRESS COMPANIES ON JUNE 30, 1890, BY ROUTES-Continued.

Part 1.-BY COMPANIES IN EACH GROUP-Continued.

GROUP IX.

ROUTES.	Pacific.	Southern.	United States.	Wells, Fargo & Co.'s.	Total operated mileage.	Duplicated mileage.	Net mileage.
Total mileage operated over railways in Group IX	4, 562. 96	1, 028. 00	256. 00	3, 242. 00	9, 088. 96	54.00	9, 034. 96
Austin and Northwestern Railroad Company	76.00				76. 00	1	
East Louisiana Railroad Company. Fact Worth and Denver City Railway Company.	469. 03		30. 70		469.03		30, 70 4 69, 03
Fort Worth and New Orleans Railway Company. Galveston, Houston and Henderson Railroad Company of 1882		40. 70 50. 00			40. 70 50. 00		40. 7u 50. 00
Gulf, Colorado and Santa Fe Railway Company Houston and Texas Central Railway Company. Houston, Central Arkansas and Northern Railroad Company Houston East and West Texas Railway Company International and Great Northern Railroad Company.		54.00	40.20	992. 64 507. 00	992. 64 561. 00	54.00	992. 64 507. 00 49. 36
Heuston East and West Texas Railway Company International and Great Northern Railroad Company	775. 40	192. 00			192. 00 775. 40		192.00 775.40
Minden Railroad Company	876. 03		5. 25		876, 03		5. 25 87 6. 03
St. Louis, Arkansas and Texas Railway Company (in Texas) San Antonio and Aransas Pass Railway Company Sauthern Pacific Company (east of El Paso)	637. 50	640.30	• • • • • • • • • • • • • • • • • • • •	1, 742, 36	637, 50		640.30 637.50 1,742.36
Texas Central Railway Company Texas and Pacific Railway Company	230. 00	·			230.00		230, 06 1, 499, 00
Texas Trunk Railroad Company Vicksburg, Shreveport and Pacific Railroad Company		51.00 ±			51.00		51. 00 170. 69
DMILEAGE OPER		R ALL LIN	IES. (a)	·		·	
Total express mileage in Group IX	4, 562 96	1, 028. 00	256. 00	3, 242. 00	9, 088. 96	54.00	9, 034. 96

a No mileage over water and stage lines in this group.

TABLE 2.—MILEAGE OPERATED BY EXPRESS COMPANIES ON JUNE 30, 1890, BY ROUTES-Continued.

Part 1.-BY COMPANIES IN EACH GROUP-Continued.

GROUP X.

ROUTES.	Denver and Rio Grande.	Northern Pacific.	Pacific.	Wells, Fargo & Co.'s.	Total operated mileage.	Duplicated mileage.	Net mileage.
Total mileage operated over railways in Group X	413, 50	1, 102. 00	2, 039. 34	7, 468. 98	11, 023. 82		11, 023. 8
Atlantic and Pacific Railroad Company (western division)				818, 00	818.00		818. 0
Arcata and Mad River Railroad Company				15.00		[15. 0
Carson and Colorado Railroad Company				300.00			300.0
Sel River and Eureka Railroad Company							25. 0
Sureka and Palisade Railroad Company				84.00	84.00		84. (
faricopa and Phœnix Railroad Company. Nevada-California-Oregon Railway Company few Mexico and Arizona Railroad Company Northern Pacific Coast Railroad Company Northern Pacific Railroad Company (west of Idaho).		· • • • • • • • • • • • • •	. <i></i>	34. 36		l	34, 2
Nevada-California-Oregon Railway Company				70.00	70.00	l,	70. (
lew Mexico and Arizona Railroad Company				87.78	87. 78		87. 7
orthern Pacific Coast Railroad Company			·	88.00			88. (
orthern Pacific Railroad Company (west of Idaho)		824.00			824.00	·	824. (
Olympia and Chehalis Valley Railway Company regon and Washington Territory Railroad Company regonian Railway Company regon Pacific Railway Company		15.00	1		15.00	i!	15.0
regon and Washington Territory Railroad Company		161.00					161.0
regonian Railway Company				182.00	182.00		182.0
regon Pacific Railway Company			1	127. 90	127. 90		127. 9
regon Pacific Railway Company. Dregon Railway and Navigation Company			640.42	330. 54	970. 96	¦l	970. 9
Short I inc and Utah Northam Pailman Company	1		1 200 00		1, 398, 92	İ!	1, 398, 9
regon Short Line and Ctan Northern Kanway Company			1, 595. 92	76, 10			76. 1
Oregon Short Line and Utah Northern Railway Company Pacific Coast Railway Company Prescott and Arizona Central Railway Company.	• • • • • • • • • • • • • • • • • • • •	• • • • • • • • • • • • • • • • • • • •		73. 30			73. 3
Poscott Rut Arizona Courtai Ranway Company	373 70			13.30			373. 7
tio Grande Western Railway Company	373. 10			162. 25			162. 2
				1 1		1	
anta Fe Southern Railway Companyeattle, Lake Shore and Eastern Railway Company	39. 80	· · · · · · · · · · · · · · · · · · ·			39. 80		39. 8
eattle, Lake Shore and Eastern Railway Company				. 155.80			155. 8
outhern California Railway Company		• • • • • • • • • • • • • • • • • • • •		476. 20	476. 20	[!	476. 2
outhern Pacific Company (west of El Paso)				4, 310. 55	4, 310. 55		4, 310. 5
outhern California Railway Company outhern Pacific Company (west of El Paso) pokane Falls and Northern Railroad Company 'irginia and Truckee Railroad Company		102.00		50 90	102. 0 0		102. 0 52. 2
riginia and Truckee rantond company		• • • • • • • • • • • • • • • • • • • •		32. 20	32. 20		02. 2
BMILEAGE OPERA	1 :		LINES.	l li		11	
Total mileage operated over water lines in Group X		161.00	195. 00		3, 602. 00		3, 602. 0
1 Land Diagram Chamback Common				245 00	365, 00		365. 0
regon Development Company			1	450.00	450.00		450.0
regon Railway and Navigation Company	1		195.00		195.00		195. 0
Pacific Coast Steemship Company		161.00		1, 576. 00	1, 737. 00		1, 737. (
acinc Coast Steamsuip Company				125. 00	125. 00		125. 0
outhern Pacific Company Steamship Line				730.00	730.00	!	730. (
outhern Pacific Company Steamship Line Inion Pacific Steamship Company							
outhern Pacific Company Steamship Line Jaion Pacific Steamship Company C.—MILEAGE OPER.	1		1		•		
CMILEAGE OPER.	ATED OVE	R STAGE	LINES.		2.744 00		2 744 (
	ATED OVE	R STAGE	LINES.	2, 724. 00	2, 744. 00		2, 744. (
C.—MILEAGE OPER. Total mileage operated over stage lines in Group X	ATED OVE	20.00	LINES.	2, 724. 00			
C.—MILEAGE OPER. Total mileage operated over stage lines in Group X	ATED OVE	20.00	LINES.	2, 724. 00 133. 00 2, 003, 00	133. 00 2, 003, 00		133. 0 2, 003. 0
C.—MILEAGE OPER. Total mileage operated over stage lines in Group X	ATED OVE	20.00	LINES.	2, 724. 00 133. 00 2, 003. 00 353. 00	133. 00 2, 003. 00 353. 00		133. 0 2, 003. 0 353. 0
C.—MILEAGE OPER. Total mileage operated over stage lines in Group X	ATED OVE	20.00	LINES.	2, 724. 00 133. 00 2, 003, 00	133. 00 2, 003. 00 353. 00		133. 0 2, 003. 0 353. 0
	ATED OVE	20.00 20.00	LINES.	2, 724. 00 133. 00 2, 003. 00 353. 00	133. 00 2, 003. 00 353. 00		2, 744. 0 133. 0 2, 003. 0 353. 0 255. 0

TABLE 2.-MILEAGE OPERATED BY EXPRESS COMPANIES ON JUNE 30, 1890, BY ROUTES-Continued.

Parts 2 and 3.—BY COMPANY AND GROUP TOTALS.

	GROUPS.	Adams.	American.	Camden and Atlantic.	Cincinnati, George- town and Ports- mouth.	Deuver and Rio Grande.	Dominion.	Earle & Prew's.	Long Island.	National.	New England Despatch.
т	otal mileage operated over rail-	23, 300. 50	40, 133. 00	78. 93	42.00	2, 100. 50	252. 00	146.00	352. 79	1, 385. 00	887.00
Group	I	1, 464, 00 6, 082, 00 5, 389, 00 1, 550, 50 1, 507, 00	a4, 997, 00 4, 568, 00 c9, 272, 75	78.93	42.00		6252. 00	146, 00	352.79	430, 00 955, 00	887.00
	VI VII	5, 103. 00 2, 205. 00	20, 540. 03 755. 22			1, 687. 00				ļ	
	X		·	1		413.50					1
			B.—MILEA	GE OPERA	ATED OVE	R WATER	LIŅES.				
1	otal mileage operated over water lines.	1, 437. 00	2, 863. 00					218. 00		231. 00	1, 407. 00
Group	I	292. 00 399. 00 746. 00	2, 275, 00 288, 00 300, 00				1			231.00	1, 407. 00
	otal mileage operated over stage	181, 00	CMILEA		ATED OVE	R STAGE	LINES.			1	I
Group	lines.		90.00					'			,=
_	II	55. 00 122. 00	3, 00 6, 00				·				
	VI	4. 00	31.00	 							***********
-			DMILE	AGE OPER	RATED OVE	R ALL LI	NES.				
т	otul express mileage operated over all lines.	24, 918. 50	43, 126. 00	78. 93	42.00	2, 100. 50	2 52. 0 0	364. 00	352.79	1, 616, 00	2, 294. 0
Group	I	1, 756. 00 6, 481. 00 6, 190. 00 1, 550. 50 1, 629. 00	a7, 362. 00 4, 859. 00 c9, 578. 75	78.93	42.00			364. 00	352.79	430, 00 1, 186, co	2, 294. 0
_	VI	5, 107. 00	755. 22								
,	VIIIIX	2, 205. 00		- <i>-</i>	·	1, 687. 00					

a Includes 89.28 miles of line in Canada.

b Includes 85.50 miles of line in Canada.

c Includes 300.30 miles of line in Canada.

TABLE 2.—MILEAGE OPERATED BY EXPRESS COMPANIES ON JUNE 30, 1890, BY ROUTES-Continued.

Parts 2 and 3.-BY COMPANY AND GROUP TOTALS-Continued.

			A.—AILI		KATED OV	EK KAILV	W A I S.				
	GROUPS.	New York and Boston Despatch.	Northern Pacific.	Pacific.	Southern.	United States.	Wells, Fargo & Co.'s.	West Jersey.	Total.	Duplicated mileage.	Net mile- age.
	Cotal mileage operated over railways.	399. 23	4, 719. 00	21, 127. 00	21, 714. 00	20, 587. 50	23, 128. 00	245. 06	a160,597.51	5, 924. 31	a154,673.2
}rou p	II	395, 23		479. 00	6, 435. 00	240. 00 4, 239. 00 5, 129. 75 540. 00	1, 548, 00 1, 450, 00	245.06	b8, 815, 23 18, 068, 78 c21, 762, 50 8, 525, 50	1, 953. 90 646. 91 1, 258. 05 51. 57	b6, 861. 3 17, 421. 8 c20, 504. 4 8, 473. 9
	V VI VII		2, 388. 14 1, 228. 86	1, 951. 00 2, 305. 49 9, 101. 23	12, 898. 00 152. 00 1, 201. 00	1, 431. 50 6, 980. 25 1, 765. 00	728. 00 4, 495. 71 4, 195. 31	 		1, 060. 84 745. 36 153. 68	15, 463. 37, 103. 8, 785. 20, 000.
	IXX.		1, 102. 00	4, 562, 96 2, 039, 34	1, 028. 00	256.00	3, 242, 00 7, 468, 98			54.00	9, 034. 9 11, 023. 8
		:	B.—MILEA	GE OPERA	TED OVE	R WATER	LINES.				•
	otal mileage operated over water	233. 00	161.00	195. 00		891.00	3, 246. 00		10, 882, 00	1.708.00	9, 174.
roup	III		161.00		 	601. 00 290. 00			1, 046. 00	1, 626. 00 82. 00	3, 400 1, 126. 1, 046. 3, 602.
			CMILEA	GE OPER	ATED OVE	R STAGE	LINES.		11	,,	
	otal mileage operated over stage lines.	<u></u>				· · · · · · · · · · · · · · · · · · ·					3, 055.
roup	I						ļ		61.00 122.00		3. 61. 122.
	ΥΙ Χ		20.00				2, 724. 00				35. (2, 744. (
			DMILE	AGE OPER	RATED OV	ER ALL L	INES.				
T	otal express mileage operated over all lines.	632. 23	4, 900. 00	21, 322. 00	21, 714. 00	21, 478. 50	29, 098. 00	245. 06	a174,534.51	7, 632. 31	a 166, 902. 2
roup	II	632. 23		479. 00		841. 00 4, 529. 00 5, 129. 75 540. 00 1, 431. 50			8, 525, 50	3, 579. 90 728. 91 1, 258. 05 51. 57 1, 060. 84	b10, 351. 18, 550. c21, 611. 8, 473. 15, 583.
•	VI		2, 388. 14 1, 228. 86	1, 951, 00 2, 305, 49 9, 101, 23	152. 00 1, 201. 00	6, 986. 25	728. 00 4, 495. 71 4, 195. 31		37, 883, 42 8, 785, 28 20, 154, 54	745. 36 153. 68	37, 138. 8, 785. 20, 000.
	X		, . 	4, 562. 96 2, 234. 34	1, 028. 00	256, 00	3, 242:00 13, 438. 98		9, 088. 96 17, 369. 82	54.00	9, 034. 17, 369.

a Includes 475.18 miles of line in Canada.

b Includes 174.88 miles of line in Canada.

c Includes 300.30 miles of line in Canada.

TABLE 3.—EQUIPMENT AND FIXTURES OF

PART 1.—BY COMPANIES IN EACH GROUP.

		CARS.	OFFIC	E SAFES.	messengers' safes.		
COMPANIES.	Number.	Value.	Number.	Value.	Number.	Value.	
Total for United States.	35	\$85, 416. 39	7, 670	\$582, 525. 03	6, 910	\$125, 816.	
Group I			312	23, 223, 68	066	9, 809.	
Adams Express Company American Express Company Dominion Express Company Earle & Prew's Express			64 167	5, 537, 25 10, 280, 93	163 399	2, 465, - 5, 717,	
Dominion Express Company			3 13	496. 00 2, 415. 00	8 16	240. 165.	
				1, 164. 50	9	167.	
National Express Company New England Despatch Express Company New York and Boston Despatch Express Company United States Express Company		1	12 15	600, 00 1, 460, 00	8 41	80. 708.	
United States Express Company			16	1, 270. 00	22	265.	
Group II			915	56, 683. 12	1, 402	22, 141.	
Adams Express Company American Express Company	·!		317	16, 122, 00 19, 579, 46	558 372	7, 877. 5, 3 30.	
Camden and Atlantic Express Company Long Island Express Company			6	420.00	15	100. 150.	
National Fernanc Company	I	1 1	20	2, 945. 50	56	1, 130.	
Wells, Fargo & Co. s Express West Jersey Express Company.	8	22, 566. 55	209 83	11, 631. 00 4, 785. 16	825 65	6, 308. 1, 070.	
West Jersey Express Company		 	4	1, 200. 00	7	175.	
Group III	9	25, 387. 36	935	62, 105. 86	998	15, 783.	
Adams Express Company American Express Company			201 374	14, 039, 04 18, 060, 74	220 442	3, 185. 6, 26 1.	
Adams Express Company American Express Company Cincinnati, Georgetown and Portsmouth Express Company Pacific Express Company			40	4, 872. 78	11	15. 306 .	
United States Express Company. Wells, Fargo & Co. s Express	9	25, 387. 36	227 93	19, 750. 00 5, 383. 30	251 73	4. 810. 1, 2 04.	
Group IV		l	267	10, 491, 00	282	4, 218.	
Adams Express Company Southern Express Company United States Express Company.	!		85 138	2, 980, 00 5, 796, 00	53 194	595. 2, 813.	
	i			1, 715. 00	35	810.	
Group V			792	42, 487. 85	550	8, 944.	
Adams Express Company		Ι .	. 66	5, 622. 50 7, 582. 41	82 19	1, 116. 477.	
Southern Express Company United States Express Company	······································		565 60	26, 307. 94 2, 975. 00	386 63	5, 866 . 1, 485 .	
Group VI	!		1, 888	126, 957.01	1,311	19, 997.	
Adams Express Company American Express Company			233 918	11, 399. 37 44, 368. 36	253 744	2, 411. 10, 521.	
Pacific Express Company	. 5	10, 000. 00	384 5	45, 153, 33 222, 50	116	2, 830. 72.	
United States Express Company Wells, Fargo & Co.'s Express	1		317	24, 019. 00 1, 794. 45	169 25	3, 7 6 0. 401.	
Group VII		 	295	28, 917. 19	161	4, 106,	
American Express Company			4	534. 20	10	142.	
Pacific Express Company Wells, Fargo & Co.'s Express			182 109	20, 033, 63 8, 349, 36	51 100	1, 289. 2, 67 4.	
Group VIII		·	1, 264	131, 470. 59	679	22, 211.	
Adams Express Company			98 38	6, 059, 26 7, 600, 00	85 145	966. 10, 62 5.	
	10	20, 000. 00	840 73	96, 590, 00 3, 890, 41	243 48	6, 076. 725.	
Pacific Express Company.					63	1, 285.	
Adams Express Company Denver and Rio Grande Express Pacific Express Company Southern Express Company United States Express Company Wells, Fargo & Co.'s Express	1		111 104	9, 421, 00 7, 909, 92	95	2, 533.	
Pacific Express Company Southern Express Company United States Express Company Wells, Fargo & Co.'s Express Group IX	! 	' 	111 104 523			2, 533. 5, 3 9 0.	
United States Express Company Wells, Fargo & Co.'s Express. Group IX. Pacific Express Company			523	7, 909, 92 53, 758, 66 44, 902, 44	231	2, 533. 5, 39 0. 2, 824.	
Wells, Fargo & Co.'s Express			523	7, 909, 92 53, 758, 66	231	2, 533. 5, 390. 2, 824. 616. - 120.	
United States Express Company Wells, Fargo & Co.'s Express. Group IX. Pacific Express Company Southern Express Company United States Express Company Wells, Fargo & Co.'s Express. Group X			523 391 47 10 75	7, 909, 92 53, 758, 66 44, 902, 44 2, 643, 50 500, 00	231 113 43 6	2, 533. 5, 39 0.	
United States Express Company Wells, Fargo & Co.'s Express. Group IX. Pacific Express Company Southern Express Company United States Express Company Wells, Fargo & Co.'s Express. Group X			523 391 47 10 75	7, 909, 92 53, 758, 66 44, 902, 44 2, 643, 50 500, 00 5, 712, 72	231 113 43 6 69	2, 533. 5, 390. 2, 824. 616 120. 1, 829.	

EXPRESS COMPANIES ON JUNE 30, 1890.

PART 1.-BY COMPANIES IN EACH GROUP.

MESSENGE	RS' TRUNKS.		ORSES.	t - V	WAGONS. SLE		EIGHS.	Value of office	Value of stable equipment, in-	Total value of	1
Number.	Value.	Number.	Value.	Number.	Value.	Number.	Value.	fixtures.	cluding har- ness.	equipment and fixtures.	1
5,690	\$62,624.15	8, 291	\$1, 464, 476, 30	6,008	\$1, 192, 286, 44	1,439	\$65,595,91	\$1,146,469.72	\$347,834.48	\$5,074,045.12	ì
1,201	11,904.06	1,093	208, 326, 00	855	155, 849, 50	436	27, 675. 69	152, 847. 88	45,859.22	635, 495. 13	ĺ
350 623 8	3, 589, 00 4, 882, 91 160, 00	255 447	44, 625, 00 91, 781, 00	243 315	35, 487, 50 65, 822, 50	147 161	10, 602, 50 8, 158, 19	54, 642, 14 54, 853, 90	14, 986, 87 16, 273, 00	171, 935, 71 257, 770, 33	1
37	512.00	85	14, 875. 00	54	10, 315, 00	37	3, 875, 00	4,700.00	4. 335. 25	896. 00 41, 252, 25	
5 25 51 102	28, 50 100, 00 1, 611, 65 1, 020, 00	28 40 139 99	5, 705, 00 7, 000, 00 28, 100, 00 16, 240, 00	29 42 98 74	4, 712, 50 7, 500, 00 19, 850, 00 12, 162, 00	18 17 34 22	684. 00 1, 000. 00 2, 393. 00 963. 00	10, 067, 13 3, 000, 00 22, 834, 71 2, 690, 00	1, 144, 25 2, 500, 00 4, 294, 50 2, 325, 35	23, 672, 88 21, 780, 00 81, 252, 61 36, 935, 35	
1, 417	14, 477, 39	3, 068	612, 307. 50	2, 143	416, 013, 50	598	27, 163, 97	292, 029, 81	125, 599, 47	1, 588, 982, 51	
537 581 4 0	7, 895, 00 4, 553, 59 16, 00 36, 00	1,044 731 6 87	222, 280, 00 150, 095, 00 800, 00 17, 400, 00	759 513 4 60	137, 297, 80 107, 202, 50 800, 00 15, 000, 00	90 308	2, 527, 00 15, 536, 81 50, 00	123, 980, 75 104, 466, 18 50, 00 900, 00	45, 845, 90 30, 991, 00 250, 00	563, 825, 45 437, 755, 34 2, 016, 00 36, 812, 00	
42	395, 00	70	11, 335. 00	65	9, 150, 00	48	2, 308, 16	14, 780, 53	2, 856, 00 2, 427, 30	44, 471, 49	- 1
78 154 15	593, 00 928, 80 60, 00	945 165 20	176, 857, 50 30, 940, 00 2, 600, 00	613 116 13	119, 532, 00 24, 781, 20 2, 250, 00	128 22	5, 936, 00 806, 00	21, 045, 75 26, 681, 60 125, 00	34, 986, 07 7, 893, 20 350, 00	376, 889, 32 120, 452, 91 6, 760, 00	
680	7, 991. 60	955	152, 726, 53	753	136, 014, 55	121	3, 193. 57	140, 526, 68	32, 564, 32	575, 293, 58	
214 206	4, 346, 70 1, 390, 00	230 286	36, 800, 00 46, 669, 00	193 214	39, 106, 20 41, 420, 00	69	1, 639, 82	44, 715, 27 49, 421, 17	7, 892, 95 9, 904, 80	150, 085, 86 174, 767, 19	1
67 173	1, 210, 00 1, 044, 90	17 228 185	2, 255. 03 32, 195. 00 34. 807. 50	8 207 131	2, 193, 50 25, 416, 00 27, 878, 85	28 24	647. 00 906. 75	1, 344, 94 15, 028, 50 30, 016, 80	1, 249, 68 4, 637, 10 8, 879, 79	15, 90 12, 222, 48 103, 693, 60 135, 509, 45	
186	2, 102, 00	189	22, 760. 00	143	17, 394, 00	***************************************		17, 854, 50	3, 331. 85	78, 151, 35	
19 150 17	220. 00 1, 710. 00 172. 00	71 98 20	8, 120, 00 12, 250, 00 2, 390, 00	48 72 23	6, 390, 00 8, 064, 00 2, 940, 00			9, 690, 00 6, 420, 00 1, 744, 50	1, 110, 00 1, 850, 00 371, 85	29, 105, 00 38, 903, 00 10, 143, 35	
492	6, 977. 50	396	61, 175. 79	270	48, 757, 30	ļ		31, 390, 93	10, 534, 59	210, 267, 98	
99	1, 346. 00	85 18	12, 825, 00 3, 508, 99	39	9, 355, 00 3, 413, 25			6, 489, 00 2, 092, 83	2, 119. 80	38, 873, 30 19, 019, 09	1
342 51	4, 616, 50 1, 015, 0 0	250 43	39, 776. 80	184 39	32, 084, 05 3, 905, 00			19, 959, 10 2, 850, 00	1, 944, 59 5, 681, 40 788, 80	134, 291, 79 18, 083, 80	
680	7, 244. 20	1. 335	206, 996, 84	952	186, 533, 50	237	5, 780, 68	207, 957, 47	51, 764, 62	831, 694, 03	
191 347	3, 288, 90 2, 336, 00	171 635	28, 311, 00 103, 619, 00	139 477	92, 325, 00	169	4, 028. 43	35, 309, 66 121, 409, 02	5, 846, 48 24, 332, 33	116, 336, 61 402, 939, 28	
4 81 57	56. 00 1, 215. 00 348. 30	173 2 292 62	19, 789, 34 250, 00 43, 425, 00 11, 802, 50	68 2 222 44	19, 522, 25 268, 00 35, 356, 00 9, 292, 95	60	1, 450. 00 302. 25	12, 838, 54 88, 10 28, 306, 55 10, 005, 60	11, 425, 01 61, 00 7, 139, 85 2, 959, 95	121, 559, 26 1, 017, 60 144, 671, 40 45, 169, 88	
23	225. 56	151	24, 648. 26	104	29, 772, 22	5	290.00	42, 272, 89	8, 672, 79	138, 904, 94	
7	50.00	72	790, 00 9, 898, 96	3 45	755. 00 12, 217. 42 16, 799, 80	3	180.00	664.30 16,211.27	271.59 4,702.46	3, 387, 59 64, 353, 21	
16	175. 56	75	13, 959. 30	56	1000	2	110.00	25, 397. 32	3, 698. 74	71. 164. 14	
125	1, 834. 72 - 426. 40	83	85, 391. 17 15, 259. 00	354 74	85, 348, 60 15, 907, 50	5	140.00	78, 891, 37 16, 357, 40	35, 517. 15	460, 805, 49	-
26	520, 00	51 358	10, 200, 00 44, 700, 07	35 175	7, 875, 00 43, 480, 50	3	30.00	6, 000, 00 26, 659, 56	3, 777, 62 3, 000, 00 24, 771, 67	58, 753, 58 45, 850, 00 262, 278, 47	1
46 4 15	662. 00 60. 00 166. 32	9 5 72	1, 547, 50 460, 00 13, 224, 60	11 6 53	1, 787, 00 393, 00 15, 915, 60	2	110.00	2, 259, 77 3, 554, 00 24, 060, 64	371, 50 92, 40 3, 503, 96	11, 243, 68 15, 255, 40 67, 424, 36	
59	731. 12	237	33, 118. 55	138	- 40, 827. 52	·		35, 229. 83	14, 728. 61	183, 784. 80	
42 6 11	• 491,00 120,00 120,12	166 17 2 52	20, 779, 95 2, 637, 50 150, 00 9, 551, 10	75 24 1 38	25, 675, 42 3, 607, 50 50, 00 11, 494, 60			12, 393, 55 5, 409, 32 50, 00 17, 376, 96	11, 515, 73 657, 00 25, 00 2, 530, 88	118, 091, 98 16, 061, 82 1, 015, 00 48, 616, 00	
750	7. 875. 00	194	38, 215, 66	232	58, 623, 75	1	20.00	95, 677, 60	12, 261. 86	255, 609, 56	
750	7, 875, 00	28 166	4. 442. 66 33, 773. 00	11 221	4, 157, 75 54, 466, 00	1	20.00	2, 228, 40 93, 449, 20	2, 787. 06 9, 474. 80	22, 700, 55 232, 909, 00	
ĺ		1	,			1		,		2-2, 000, 00	i

TABLE 3.—EQUIPMENT AND FIXTURES OF

PART 2.—BY COMPANY TOTALS.

-		CA	RS.	OFFIC	R SAFES.	messengers' safes.	
	COMPANIES AND GROUPS.	Number.	Value.	Number.	Value.	Number.	Value.
1	Total	35	\$86, 416, 39	7, 870	\$582, 525. 03	6, 910	\$125, 816, 70
2 3 4	Adams Express Company American Express Company Camden and Atlantic Express Company			1, 039 1, 780	61, 759, 42 92, 823, 69	1, 414 1, 967 4	18, 617, 45 27, 974, 00 100, 00
6	Camden and Atlantic Express Company Cincinnati, Georgetown and Portsmouth Express Company Denver and Rio Grande Express			38	7, 600. 00	145	15.00 10,625.00
7 8 9 10	Dominion Express Company. Earlo & Prew's Express Long Island Express Company National Express Company.			3 13 6 61	496.00 2,415.00 420.00 4,110.00	8 16 15 65	240, 00 165, 00 150, 00 1, 297, 00
11 12 13 14	New England Despatch Express Company New York and Boston Despatch Express Company Northern Pacific Express Company Pacific Express Company	15	30, 000. 00	12 15 228 1, 979	600.00 1,460.00 13,452.00 227,699.66	8 41 181 572	80.00 708.75 3, 258.00 14.325.00
15 16 17 18	Southern Express Company United States Express Company Wells, Fargo & Co.'s Express West Jersey Express Company	20	56, 416, 39	1	38, 860, 35 71, 281, 00 58, 347, 91 1, 200, 00	675 934 857 7	10, 092, 50 18, 843, 00 19, 151, 00 175, 00

PART 3.-BY GROUP TOTALS.

1	Total	35	86, 416. 39	7, 670	582, 525. 03	6, 910	125, 816, 70
2 3 4 5	Group I	8 9	22, 566. 55 25, 387. 36	312 915 935 267 792	23, 223, 68 56, 683, 12 62, 105, 86 10, 491, 00 42, 487, 85	666 1, 402 998 282 550	9, 809. 10 22, 141. 20 15, 783. 11 4, 218. 00 8, 944. 02
7 8 9 10 11	VI VII VIII IX X	10	18, 462. 48 20, 000. 00	1, 888 295 1, 264 523 251	126, 957, 01 28, 917, 19 131, 470, 59 53, 758, 66 32, 978, 07	1, 311 161 679 231 449	19, 997, 23 4, 106, 03 22, 211, 89 5, 390, 51 9, 957, 61
12	Not divided by groups (Northern Pacific Express Company)		· · · · · · · · · · · · · · · · · · ·	228	13, 452. 00	181	3, 258. 00

EXPRESS COMPANIES ON JUNE 30, 1890—Continued.

PART 2.-BY COMPANY TOTALS.

MESSENGE	RS' TRUNKS.	1	iorses.	v	AGONS.	SL	кісня.	Value of office	Value of stable equipment, in-	Total value of
Number.	Value.	Number.	Value.	Number.	Value.	Number.	Value.	fixtures.	cluding har- ness.	equipment and fixtures.
5, 690	\$62, 624. 15	8, 291	\$1, 464, 476. 30	6, 008	\$1, 192. 286. 44	1, 439	\$ 65, 595. 91	\$1, 146, 409. 72	\$ 347, 834. 48	\$ 5, 07 4 , 0 4 5. 12
1, 444 1, 764 4	21, 112. 00 13, 212. 50 16. 00	1, 948 2, 103 6	368, 220, 00 392, 954, 00 800, 00	1. 495 1, 522 4	273, 313, 30 307, 525, 00 800, 00	237 710	13, 129, 50 29, 543, 25	291, 184, 22 330, 814, 57 50, 00	81, 579, 62 81, 772, 72 250, 00	1, 128, 915. 51 1, 276, 619. 73 2, 016. 00 15. 00
26	52 0. 00	51	10, 200. 00	35	7, 875. 00	3	30.00	6, 000. 00	3, 000. 00	45, 850. 00
8 37 6 47	160. 00 512. 00 36, 00 423. 50	85 87 98	14, 875, 00 17, 400, 00 17, 040, 00	54 60 94	10, 315, 00 15, 000, 00 13, 862, 50	37 2 66	3, 875. 00 50. 00 2, 992 . 16	4, 760, 00 900, 00 24, 847, 66	4, 335, 25 2, 856, 00 3, 571, 55	896. 00 41, 252. 25 36, 812. 00 68, 144. 37
25 51 97	100.00 1,611.65 1,261.00	40 139 95 832	7, 000, 00 28, 100, 00 18, 810, 00 105, 375, 00	42 98 64 390	7, 500, 00 19, 850, 00 17, 152, 00 110, 660, 09	17 34 36	1, 000 00 2, 393. 00 1, 332. 00	3, 000, 00 22, 834, 71 51, 790, 76 73, 769, 09	2, 500, 00 4, 294, 50 7, 000, 00 58, 396, 20	21, 780, 00 81, 252, 61 114, 055, 76 620, 225, 04
584 406 1, 176	7, 535, 50 5, 405, 00 10, 659, 00 60, 00	376 1,634 777 20	56, 461, 80 276, 782, 50 147, 858, 00 2, 600, 00	293 1, 185 659 13	45, 810, 55 199, 744, 00 160, 629, 00 2, 250, 00	238 59	8, 996. 00 2, 253. 00	34, 136, 29 75, 269, 30 226, 988, 12 125, 00	8, 620, 90 50, 366, 42 38, 941, 32 350, 00	201, 517, 89 706, 687, 22 721, 245, 74 6, 760, 00

PART 3.—BY GROUP TOTALS.

5, 690	62, 624. 15	8, 291	1, 464, 476. 30	6,008	1, 192, 286, 44	1, 439	65, 595. 91	1, 146, 469. 72	347, 834. 48	5, 074, 045, 12	1
1, 201 1, 417 660 186 492	11, 904, 06 14, 477, 39 7, 991, 60 2, 102, 00, 6, 977, 50	1, 093 3, 068 955 189 396	208, 326, 00 612, 307, 50 152, 726, 53 22, 760, 50 61, 175, 79	855 2, 143 753 143 270	155, 849, 50 416, 013, 50 136, 014, 55 17, 394, 00 48, 757, 30	436 598 121	27. 675. 69 27, 163. 97 3, 193. 57	152. 847. 88 292. 029. 81 140, 526. 68 17, 854. 50 31, 390. 93	45, 859, 22 125, 599, 47 32, 564, 32 3, 331, 85 10, 534, 59	635, 495, 13 1, 588, 982, 51 576, 293, 58 76, 151, 35 210, 267, 98	2 3 4 5 6
680 23 125 59 750	7, 244. 20 225. 56 1. 834. 72 731. 12 7, 875. 00	1, 335 151 578 237 194	206, 996, 84 24, 648, 26 85, 391, 17 33, 118, 55 38, 215, 66	952 104 354 138 232	186, 533, 50 29, 772, 22 85, 348, 60 40, 827, 52 58, 623, 75	237 5 5	5, 780. 68 290. 00 140. 00	207, 957, 47 42, 272, 89 78, 891, 37 35, 229, 83 95, 677, 60	51, 764, 62 8, 672, 79 35, 517, 15 14, 728, 61 12, 261, 86	831, 694. 03 138, 904. 94 460, 805. 49 183, 784. 80 255, 600. 55	7 8 9 10 11
97	1, 261. 00	95	18, 810. 00	64	17, 152. 09	36	1, 332. 00	51, 790. 76	7, 000. 00	114, 055. 76	12

TABLE 4.—EMPLOYES OF EXPRESS COMPANIES ON JUNE 30, 1890.

PART 1.-BY COMPANIES IN EACH GROUP.

COMPANIES.	Total.	General officers.	Superintendents and route agents.	General office clerks.	Agents.	Assistants to agents.	Messen gers.	Baggage men em- ployed as messen- gers.	Drivers of wagons.	All others.
Total employés in United States	45, 718	86	320	1, 377	21, 065	7, 952	4, 130	1, 405	4,877	4, 506
Group I	3, 974	10	26	91	1,407	644	487	130	689	490
Adams Express Company. American Express Company. Dominion Express Company. Karle & Prew's Express.	957 1. 881 50 190	3	11 4	23 16 30	320 777 18 26	153 372	99 297 14 15	21 43 2 11	152 246 57'	185 116 12
National Express Company	134 174 851 237	2 3	1 2 2 2 2	3 16 3	46 52 106 62	33 47 39	11 20 18 13	3 10 • 22 18	25 75 79 55	15 10 58 45
Group II	11, 542	49	52	611	3, 808	1, 918	830	601	1,711	1, 967
Adams Express Company American Express Company. Camden and Atlantic Express Company Long Island Express Company	4, 044 3, 003 33 82	9 25 1	12 17	123 252 1	1, 356 931 19	516 719	273 283 15	225 34 6	598 401 6 66	932 341
National Express Company United States Express Company Wells, Fargo & Co.'s Express West Jersey Express Company	453 2, 922 907 98	7 4 2 1	5 12 5	26 183 25 1	169 969 292 67	62 367 254	59 169 31	10 223 78 15	59 412 155 14	54 573 65
Group III	6, 071	1	39	107	3, 320	730	576	193	571	534
Adams Express Company American Express Company. Cincinnati, Georgetown and Portsmouth Express Company.	1, 701 2, 225 4	1	10 17	73 16	1,011 1,203	175 209	137 297 1	64 39	151 197	80 246 3
Pacific Express Company United States Express Company Wells, Fargo & Co.'s Express	114 1, 362 665		1 6 5	14 4	47 729 330	51 128 167	5 104 32	1 37 52	9 164 50	189 25
Group IV	1, 685	i	15	24	1, 197	94	127	64	80	84
Adams Express Company	365 1, 061 259	,	1 12 2	24	269 735 193	. 25 55 14	24 96 7	6 44 14	24 40 16	16 55 13
Group V	3, 241	į	33	76	1, 968	346	290	115	198	215
Adams Express Company Pacific Express Company Southern Express Company United States Express Company	447 180 2, 355 259	1	3 2 24 4	5 70 1	275 74 1,473 146	44 79 201 22	40 8 210 32	9 2 103 1	45 15 107 31	26 167 22
Group VI	8, 891	7	. 59	88	4, 618	1, 385	891	145	836	862
Adams Express Company American Express Company Pacific Express Company Southern Express Company Wells, Fargo & Co. s Express Under States Express Company	1, 017 4, 836 1, 052 38 1, 671 277	7	32 6	10 60 1 15 2	582 2, 575 435 22 898 106	90 571 471 6 168	111 547 44 4 163 22	52 68 10 1 9	92 439 86 2 177 40	75 537 2 227
		ļi .	_							
Group VII American Express Company	1, 395	5	17		13	389	102	24	113	1
Pacific Express Company Wells, Fargo & Co.'s Express	628 739	i	7	110 17	201 380	213 173	21 74	5 19	65 45	23
Group VIII	4, 347	1	38	47	2, 075	1, 297	354	71	344	120
Adams Express Company Denver and Rio Grando Express Pacific Express Company Southern Express Company	531 264 2, 277 184	1	3 5 16	5 12 15	279 137 937 124	58 30 1,007	55 39 . 95 16	9 11 23 12	63 29 ; 184 6	59
United States Express Company Wells, Fargo & Co.'s Express	347 744		3 7	5	247 351	192	56 93	1 15	8 54	23 27
Group IX	1, 705		15		782	592	112	35	137	25
Pacific Express Company Southern Express Company Cnited States Express Company Wells, Fargo & Co.'s Express	1, 051 116 22 516		6 3 6	3	436 73 18 255	468 8 1 115	44 7 2 59	11 10	86 8 1 42	3
Group X	2, 034	, 7	14	166	. 889	557	230	27	108	36
Pacific Express Company Wells, Fargo & Co.'s Express	192 1,842	7	3 11	166	79 810	85 472	8 222	2 25	15 93	36
	833] '		!		!	131	. !		

TABLE 4.—EMPLOYES OF EXPRESS COMPANIES ON JUNE 30, 1890—Continued.

PART 2.—BY COMPANY TOTALS.

COMPANIES AND GROUPS.	Total.	General officers.	Superintendents and route agents.	General office clerks.	Agents.	Assist- anta to agenta.	Messen- gers.	Baggage men em- ployed as messen- gers.	Drivers of wagons.	All others.
Total employés in United States	45, 718	86	320	1, 377	21, 0€5	7, 952	4, 130	1, 405	4, 877	4, 506
Adams Express Company	9,062 11,973 33	9 36 1	38 78	239 344 1	4, 092 5, 499 19	1, 061 1, 874	789 1, 431	386 184 6	1, 125 1, 286 6	1, 373 1, 241
Incinnati, Georgetown and Portsmouth Express Company. Denver and Rio Grande Express	264	1 ·····	5	12	137	30	1 39	11	29	8
Ominion Express Company Larle & Prew's Express .ong Island Express Company .stional Express Company	50 190 82 587	2	1 6	30 26	18 26 215	95	14 15 15 70	2 11 13	57 66 84	12 49 71
New England Despatch Express Company New York and Boston Despatch Express Company Northern Pacific Express Company Actific Express Company	174 351 833 5, 494	2 3 6 4	2 2 12 43	3 16 33 125	52 106 412 2, 209	47 2, 374	20 18 131 225	10 22 54	75 79 90 460	10 58 148
Southern Express Company Juited States Express Company Wells, Fargo & Co.'s Express West Jersey Express Company	3, 754 7, 079 5, 690 98	10 1	43 43 43	109 216 222 1	2, 427 3, 262 2, 524 67	276 743 1, 452	333 546 533	170 313 208 15	163 864 479 14	2:33 1, 088 218
	Part	3.—BY G	ROUP TO	TALS.			<u></u>	1		
Total employés in United States	45, 718	86	320	1, 377	21, 065	7, 952	4, 130	1, 405	4, 877	4,500

Total employés in United States	45, 718	86	320	1, 377	21, 065	7, 952	4, 130	1, 405	4, 877	4,506
Group I	3, 974 11, 542 6, 071 1, 685 3, 241	10 49 1	26 52 39 15 33	91 611 107 24 76	1, 407 3, 803 3, 320 1, 197 1, 968	644 1,918 730 94 346	487 830 576 127 290	130 601 193 64 115	689 1, 711 571 80 198	490 1, 967 534 84 215
VI VII VIII IX X. Not divided by groups (Northern Pacific Express Company).	8, 891 1, 395 4, 347 1, 705 2, 034	7 5 1 7 6	59 17 38 15 14	88 127 47 7 166	4, 618 594 2, 075 782 889 412	1, 385 389 1, 297 592 557	891 102 354 112 230	145 24 71 35 27	836 113 344 187 108	862 24 120 25 36

TABLE 5.—EXPENDITURES OF EXPRESS COMPANIES FOR THE YEAR ENDING JUNE 30, 1890. PART 1.—BY COMPANIES IN EACH GROUP.

		- -	<u> </u>	· . 	OPERATII	NG EXPENSES.				
COMPANIES.	Total.	Paid to railways.	Paid to water lines.	Paid to stage lines.	l'aid for salaries and wages.	Paid for local expenses and repairs.	Paid for general expenses.	Paid for other ex- penses of operation.	Total operating expenses.	Taxes.
Total expenditures for United States.	\$45,783,123. 32	\$19,327,280.49	\$173,222.13	\$60, 679. 38	\$16,176,097.55	\$3, 560, 045. 83	\$826, 715. 50	\$2, 289, 6 63, 82	\$42,413,704.70	\$171, 370.31
Group I	4, 328, 704, 79	1, 681, 423, 73	105, 439. 27	1, 620. 61	1, 758, 528. 52	571, 751. 50	71, 114. 98	114, 331. 31	4, 304, 209, 92	21, 494. 87
Adams Express Company American Express Company. Dominion Express Company. Earle & Prew's Express	1, 886, 334, 23	581, 196, 30 761, 866, 94 5, 940, 00 48, 579, 50	54, 213, 10 10, 214, 30 21, 800, 00	1, 620. 61	509, 308. 48 806, 866. 26 3, 648. 00 84, 740. 83	189, 304. 43 227, 917. 95 35. 44 36, 689. 80	12, 580, 82 45, 594, 74 887, 50 2, 236, 40	31, 074. 14 22, 650. 49 472. 00 9, 875. 66	1, 377, 677, 27 1, 876, 731, 29 10, 982, 94 203, 922, 19	9, 843, 24 9, 602, 94 3, 18 320, 50
National Express Company New England Despatch Ex-	77, 803, 75 120, 503, 02	27, 180, 35 22, 497, 16		ł	37, 024, 62 52, 271, 00	7, 794, 69 22, 460, 71	2, 390. 43 1, 410, 92	2, 036. 72 6, 709. 00	76, 705. 50 119, 321. 42	1, 098. 25 1, 181. 60
new York and Boston Despatch Express Company.	406, 148. 75	123, 374. 42	4, 244, 68	ļ	176, 037. 22	84, 115, 47	3, 452. 72	12, 985. 23	404, 209. 74	1, 939. 01
United States Express Com- pany.	2 35, 165, 72	110, 789. 06	715. 87		88, 632. 11	3, 4 33. 01	2, 561. 45	28, 528. 07	234, 659. 57	506, 15
Group II	11, 156, 744. 96	4, 396, 300. 16	20, 005, 06	779. 60	4, 606, 737. 98	1, 289, 235, 83	198, 675, 90	590, 972. 73	11, 102, 707. 26	54, 037. 70
Adams Express Company American Express Company Camden and Adantic Express Company (b)	3, 128, 288. 55 16, 696. 09	1, 786, 652, 34 1, 076, 816, 26 3, 46	9, 023, 16 2, 930, 69 552, 68	306.05	1, 974, 215. 61 1, 371, 464. 68 11, 399. 34	704, 463. 20 486, 768. 64	65, 398. 30 90, 583. 05 54. 32	122, 131, 28 62, 241, 04 4, 686, 29	4, 661, 883, 89 3, 091, 110, 41 16, 696, 09	8, 478. 00 37, 178. 14
Long Island Express Company. (c)				' 		ļ		' i	 	
National Express Company United States Express Com-	508, 221, 54 2, 144, 058, 60	221, 322, 76 1, 010, 035, 82	971.48 6,527.05	473. 55	199, 940. 09 808, 116. 37	53, 173. 90 31, 301. 01	13, 666, 99 23, 354, 47	16, 718. 45 260, 108. 91	506, 267 22 2, 139, 443. 63	1, 954. 32 4, 614. 97
Wells, Fargo & Co.'s Express. West Jersey Express Company. (b)	642, 449. 72 46, 668. 57	299, 849. 98 1, 619. 54			208, 547, 24 33, 054, 65	13, 529. 08	5, 551. 41 67. 36	113, 159, 74 11, 927, 02	640, 637, 45 46, 668, 57	1,812.27
Group III	6, 102, 306. 70	3, 142, 269. 09	14, 409. 44	1, 307. 52	2, 122, 954. 34	365, 451. 38	80, 915. 17	356, 976. 02	6, 084, 382. 96	17, 923. 74
Adams Express Company American Express Company Cincinnati, Georgetown and Portsmouth Express Com- pany. (b)		859, 195, 52 1, 149, 669, 39	6, 596. 86 2, 949. 51	878. 80 428. 72	018, 324, 47 634, 365, 70 1, 080, 00	149, 413. 17 169, 572. 60	19, 110, 43 36, 172, 00	15, 439, 96 17, 969, 47	1, 668, 959, 21 2, 011, 127, 39 1, 080, 00	4, 788, 63 7, 618, 36
Pacific Express Company United States Express Com-		42, 249. 92 752, 713. 96	4, 863. 07		27, 896, 94 602, 177, 03	7, 629. 51 23, 324. 30	1, 864. 92 17, 402. 84	193, 823. 09	79, 641, 29 1, 594, 304, 29	(d) 3, 438. 89
pany. Wells, Fargo & Co.'s Express.	731, 348. 64	338, 540. 30		ļ	239, 110. 20	15, 511. 80	6, 564. 98	129, 743. 50	729, 270. 78	2, 077. 86
Group IV	1, 398, 226. 83	721, 066. 08	875. 11		489, 412. 43	73, 447. 91	77, 772. 87	29, 044. 24	1, 391, 618. 64	6, 608. 19
Adams Express Company Southern Express Company United States Express Company.	406, 454, 11 767, 355, 76 224, 416, 96	251, 394, 58 361, 690, 20 107, 981, 30	245. 64 629. 47		115, 938, 80 289, 147, 44 84, 326, 19	28, 594, 49 42, 212, 34 2, 641, 08	6, 727. 80 68, 931. 35 2, 113. 72	2, 120. 96 681. 35 26 , 241. 93	404, 776, 63 762, 908, 32 223, 933, 69	1, 677, 48 4, 447, 44 483, 27
Group V	2, 787, 908. 88	1, 391, 023. 99	718. 50	4, 340. 53	1, 096, 684. 67	176, 568. 91	53, 664. 62	47, 069. 74	2, 770, 070. 96	17, 837. 92
Adams Express Company Pacific Express Company Southern Express Company United States Express Company	123, 815, 80	272, 934, 44 65, 633, 03 933, 521, 20 118, 935, 32	1	4, 340. 53		35, 135, 39 11, 871, 08 125, 877, 00 3, 685, 44	4, 523. 90 2, 901. 96 43, 488. 96 2, 749. 80	6, 914. 03 (d) 9, 529. 99 30, 625. 72	449, 742, 77 123, 815, 80 1, 944, 652, 43 251, 859, 96	2, 505, 23 (d) 14, 789, 32 543, 37
Group VI	8, 149, 814. 73	3, 947, 871. 78	7, 053. 22	1, 997. 38	3, 052, 745. 49	611, 189. 24	150, 888. 04	350, 957. 89	8, 122, 703. 04	27, 111. 69
Adams Express Company American Express Company Pacific Express Company Southern Express Company	750, 728, 46 37, 471, 59	552, 046, 79 1, 877, 301, 80 398, 407, 98 20, 714, 09	652.50	283. 05 1, 714. 33	348, 503, 31 1, 561, 379, 13 261, 104, 01 13, 775, 16	106, 638. 07 392, 820. 32 74, 120. 61 2, 016. 60	19, 235, 73 88, 872, 41 17, 095, 86 771, 24	10, 575, 57 44, 149, 90 (d) 186, 24	1, 037, 282, 52 3, 966, 890, 39 750, 728, 46 37, 463, 38	3, 203, 72 18, 717, 86 (d) 8, 26
United States Express Com- pany. Wells, Fargo & Co.'s Express.	2, 102, 658. 57 232, 861. 62	990, 584. 60 108, 816. 52	6,400.72		792, 475, 40 75, 508, 48	30, 695, 18 4, 898, 46	22, 902. 44 2, 010. 36	255, 074. 55 40, 971. 63	2, 098, 132, 89 232, 205, 45	4, 525, 68 656, 17
Group VII	1, 295, 550. 82	1				52, 840. 72	1 5 , 822, 55	147, 390. 05	1, 293, 176. 75	2, 374. 07
American Express Company	33, 717, 90	13, 191. 94				5, 204, 74	1, 101. 59	67. 29	33, 702. 90	15. 00
Pacific Express Company Wells, Fargo & Co.'s Express.	428, 958, 94	244, 730, 50		¹	146, 702, 97 271, 470, 97	30, 024. 85 17, 611. 13	7, 494, 56 7, 226, 40	(d) 147, 302. 76	428, 958, 94 830, 514, 91	(d) 2, 359. 07
Group VIII	3, 422, 191. 11	1,638,630.72			1, 252, 773. 53	275, 757. 37	67, 358. 68	182, 845. 90	3, 418, 359. 99	3, 831. 12
Adams Express Company Denver and Rio Grande Express.	152, 188. 13	200, 843, 43 (e)	·		•	59, 884, 23 35, 849, 07	4, 875, 40 9, 638, 35	8, 712, 34 629, 37	451, 241. 46 152, 188. 13	532. 40 (f)
Pacific Express Company Southern Express Company United States Express Com- pany.	160, 928, 16 325, 985, 38	837, 496, 03 83, 768, 18 153, 801, 33	993.79		541, 226, 46 61, 483, 80 122, 562, 22	151, 235, 36 8, 161, 20 4, 765, 83	36, 967, 33 5, 813, 16 3, 555, 89	(d) 1, 230, 48 39, 603, 67	1, 566, 925. 18 160, 456. 82 325, 282. 73	(d) 471. 34 702. 6 5
Wells, Fargo & Co.'s Express.	764, 390, 40	362, 721. 75			244, 503. 65	15, 861. 68	6, 508. 55	132, 670. 04	762, 265. 67	2, 124. 73

a The total expenditures, \$45,783,123.32, include dividends.
b Partial report, the express company being a department of the railroad whose name it bears.
c Returns included in report of railway company of which the express company is a department.
d None reported.
e Included in the operating expenses of the Denver and Rio Grande railroad.
f Included in those of the Denver and Rio Grande railroad.

TABLE 5.-EXPENDITURES OF EXPRESS COMPANIES FOR THE YEAR ENDING JUNE 30, 1890—Continued. PART 1.-BY COMPANIES IN EACH GROUP-Continued.

		OPERATING EXPENSES.									
COMPANIES.	Total	Paid to railways.	Paid to water lines.	Paid to stage lines.	Paid for salaries and wages.	Paid for local ex- penses and repairs.	Paid for general expenses.	Paid for other expenses of operation.	Total operating expenses.	Taxes.	
Group IX	\$1, 364, 034. 92	\$639 , 814, 21	\$69.48		\$499, 891. 06	\$94 , 916, 17	\$24, 772, 90	\$101, 816. 20	\$1, 361, 280. 02	\$2,754.9	
Pacific Express Company Southern Express Company United States Express Com-		325, 000, 67 42, 900, 83 10, 753, 05	69. 48		257, 069, 02 54, 437, 04 8, 602, 52	70, 305, 64 12, 614, 28 333, 20	17, 185, 19 2, 553, 36 248, 61	(a) 1, 495. 80 2, 768. 90	669, 560, 52 114, 001, 31 22, 775, 76	(a) 1, 143. 5 49. 1	
pany. Wells, Fargo & Co.'s Express.	536, 504. 70	261, 159. 66	 		179, 782. 48	11, 663. 05	4, 785. 74	97, 551. 50	554, 942, 48	1. 562. 2	
Group X	1. 785, 199. 21	720, 925. 28	21, 009. 41	\$50, 100. 71	606, 084. 67	48, 886, 80	19, 046. 12	314, 115. 86	1, 780, 168. 85	5, 030. 3	
Pacific Express Company Wells, Fargo & Co.'s Express	106, 861, 56 1, 678, 337, 65	60, 771, 70 660, 153, 58	3, 462. 77 17, 546. G4	472. 67 49, 628. 04	27, 186, 31 578, 898, 36	11, 331. 94 37, 554. 86	3, 636, 17 15, 409, 95	(a) 314, 115. 86	106, 861, 56 1, 673, 307, 29	(a) 5, 030. 3	
Not divided by groups (Northern Pacific Express Company).	794, 392. 06	403, 023. 30	2, 648. 85	533. 03	257, 993. 58		66, 683. 67	54, 143. 88	785, 026. 31	9, 365. 7	
Dividends as reported by companies in Part 2 of this table.	3, 198, 048, 31					'		· · · · · · · · · · · · · · · · · · ·		· · · · · · · · · · · · · · · · · · ·	

a None reported.

PART 2.-BY COMPANY TOTALS. (a)

	I	: 	OPE	RATING EXPENS	es.	
COMPANIES.	Total expeudi- tures.	Paid to railways.	Paid to water lines.	Paid to stage lines.	Paid for salaries and wages.	Paid for local expenses and repairs.
Total expenditures for United States	\$45, 783, 123. 32	\$19, 327, 280, 49	\$173, 222. 13	\$60, 679. 38	\$16. 176, 097. 55	\$3, 560, 045. 8
Adams Express Company. American Express Company. Canden and Atlantic Express Company. Cincinnati, Georgetown and Portsmouth Express Company.	12, 132, 694, 68 16, 696, 09 1, 080, 00	4, 504, 263, 40 4, 878, 846, 33 3, 46	69, 833, 12 16, 747, 00 552, 68	5, 502, 38 4, 069, 71	3, 869, 111, 21 4, 388, 193, 11, 11, 399, 34 1, 080, 00	1, 273, 432, 9 1, 282, 284, 2
Denver and Rio Grande Express		lł.	Į.	· • • • • • • • • • • • • • • • • • • •	106, 071, 34	35, 849. 0
Dominion Express Company Earle & Prew's Express Long Island Express Company	228, 604, 66	5, 940, 00 48, 579, 50	21, 800. 00		3, 648. 00 84, 740. 83	35. 4 36, 689. 8
Cong Island Express Company	623, 225, 29	248, 503, 11	1, 250. 17	473. 55	236, 964. 71	60, 968. 8
New England Despatch Express Company New York and Boston Despatch Express Company	120, 503, 02 413, 506, 60	22, 497, 16 123, 374, 42	13, 972. 63 4, 244. 68		52, 271. 00 176, 037. 22	22, 460, 7 84, 115, 4
Northern Pacific Express Company	933, 520, 55 3, 726, 491, 75	403, 023, 30 1, 974, 295, 89		533. 03 472. 6 7	257, 993, 58 1, 304, 595, 44	356, 518, 9
Southern Express Company United States Express Company Wells, Fargo & Co.'s Express. West Jersey Express Company	3, 040, 342, 08 7, 355, 256, 62	1, 442, 594, 50 3, 255, 504, 44 2, 418, 145, 44 1, 619, 54	20, 917. 95 17, 546. 64	49, 628. 04	1, 251, 078, 72 2, 602, 037, 02 1, 797, 821, 38 33, 054, 65	190, 881. 4 100, 179. (116, 630. (
	OPERAT	ING EXPENSES—	continued.		bivi	DENDS.
COMPANIES.	Paid for general expenses.	Paid for other expenses of operation.	Total operating expenses.	Taxes.	Amount.	Rate per cent.
Total expenditures for United States	\$826, 715. 50	\$2, 289, 663, 82	\$42, 413, 704. 70	\$171, 370. 31	\$3, 108, 048. 3	i
Adams Express Company	262, 323. 79	196, 968, 28 147, 698, 19	10, 051, 563, 75 10, 979, 562, 38	31, 028, 70 73, 132, 30	1, 080, 000. 0	υ 6.0
Camden and Atlantic Express Company	1	4, 686. 29	16, 696. 09 1, 080. 00			
Denver and Rio Grande Express		629. 37	152, 188. 13	1	-	•
Dominion Express Company	2, 236. 40	472. 00 9, 875. 66	10, 982. 94 203, 922. 19	3. 18 320. 50		7
Long Island Express Company	16, 057. 42	18, 755. 17	582 , 9 7 2. 72	3, 052, 57	37, 200. 0	0 8.0
New England Despatch Express Company New York and Boston Despatch Express Company Northern Pacific Express Company Pacific Express Company	3, 452. 72 66, 683, 67	6, 709, 00 12, 985, 23 54, 143, 88	119, 321, 42 • 404, 209, 74 785, 026, 31 3, 726, 491, 75	b1, 181, 60 1, 939, 01 c9, 365, 75	7, 357. 8 139, 128. 4	5 9
	121, 558. 07	13, 123, 86	3, 019, 482, 21 6, 890, 392, 52	20, 859, 87 14, 864, 10		

a locals given are for 10 companies only, 4 of which are names they bear, and the Denver and Rio Grande Express.

b Includes interest payments, \$200.
c Represents deductions from income.

TRAN-PT. 2-34

TABLE 5.—EXPENDITURES OF EXPRESS COMPANIES FOR THE YEAR ENDING JUNE 30, 1890—Continued.

PART 3.-BY GROUP TOTALS. (a)

			OPE	RATING EXPENS	ES.	
GROUPS.	Total expendi- tures.	Paid to rail ways.	Paid to water lines.	P. id to stage lines.	Paid for salaries and wages.	Paid for local expenses and repairs.
Total expenditures for United States	\$ 45, 783, 123. 32	\$19, 327, 280. 49	\$173, 222. 13	\$60, 679. 38	\$16, 176, 097. 55	\$3, 560, 045. 8
oup I		1, 681, 423, 73	105, 439, 27	1, 620, 61	1, 758, 528, 52	571, 751.
		4, 396, 300. 16	20, 005. 06	779. 60	4, 606, 737. 98	1, 289, 235.
<u> </u>		3, 142, 369. 09	14, 409. 44	1, 307. 52	2, 122, 954. 34	365, 451.
I V		721, 066, 08	875. 11 718. 50	4 240 50	489, 412. 43	73, 447. 176, 568.
ν	2, 787, 908. 88	1, 391, 023. 99	/18. 50	4, 340. 53	1, 096, 684. 67	170, 308.
<u>VI</u>		3, 947, 871, 78	7, 053. 22	1, 997. 38	3, 052, 745. 49	611, 189.
<u>VII</u>		644, 832, 15		· · · · · · · · · · · · · · · · · · ·	432, 291, 28	52, 840.
VIII IX		1, 638, 630, 72 639, 814, 21	993. 79		1, 252, 773, 53 499, 891, 06	275, 757. 94, 916.
X		720, 925, 28	21, 009, 41	50, 100. 71		48, 886.
			1 1		000, 004, 01	10, 0,00
ot divided by groups (Northern Pacific Express Company) ividends as reported by companies in Part 2 of this table	794, 392, 06 3, 198, 048, 31	403, 023, 30	2, 648. 85	533, 03	257, 993. 58	
			i Length and the second of the second	reservation care		·
	OPERAT	ING EXPENSES	ontinued.	1.	DIVI	DENDS.
		. — — i			i:	· . —
GROUPS.	Paid for general expenses.	Paid for other expenses of operation.	Total operating expenses.	Taxes.	Amount.	Rate per cent.
	i — · · — -				· · ·	
Total expenditures for United States	\$826, 715. 50	\$2, 289, 663, 82	\$42.413,704.70	\$171, 370. 31	\$3, 198, 048. 3	¹
						i
*		****	4 504 000 00	04 404 05	• 31	
roup I	71, 114, 98	114, 331, 31	4, 304, 209, 92	24, 494, 87		!
1Ī	71, 114, 98 198, 675, £0	590, 972. 73	11, 102, 707, 26	54, 037. 70		
II	71, 114, 98 198, 675, 10 80, 915, 17	590, 972. 73 356, 976. 02	11, 102, 707, 26 6, 084, 382, 96	54, 037. 70 17, 923. 74) 	
1Ī	71, 114, 98 198, 675, 90 80, 915, 17 77, 772, 87	590, 972, 73 356, 976, 02 29, 044, 24	11, 102, 707, 26 6, 084, 382, 96 1, 391, 618, 64	54, 037. 70 17, 923. 74 6, 608. 19) 	
II	71, 114, 98 198, 675, 10 80, 915, 17 77, 772, 87 53, 664, 62	590, 972, 73 356, 976, 02 29, 044, 24 47, 060, 74	11, 102, 707, 26 6, 084, 382, 96 1, 391, 618, 64 2, 770, 070, 96	54, 037. 70 17, 923. 74 6, 608. 16 17, 837. 92		
II	71, 114, 98 198, 675, 90 80, 915, 17 77, 772, 87 53, 664, 62 150, 886, 04	590, 972, 73 356, 976, 02 29, 044, 24 47, 069, 74 350, 957, 89	11, 102, 707, 26 6, 084, 382, 96 1, 391, 618, 64 2, 770, 070, 96 8, 122, 703, 04	54, 037, 70 17, 923, 74 6, 608, 10 17, 837, 92 27, 111, 66	}	
II III IV. V. V.	71, 114, 98 198, 675, 10 80, 915, 17 77, 772, 87 53, 664, 62 150, 886, 04 15, 822, 55	590, 972, 73 356, 976, 02 29, 044, 24 47, 060, 74 350, 957, 89 147, 390, 05	11, 102, 707, 26 6, 084, 382, 96 1, 391, 618, 64 2, 770, 070, 96 8, 122, 703, 04 1, 293, 176, 75	54, 037. 70 17, 923. 74 6, 608. 16 17, 837. 92 27, 111. 66 2, 374. 07		
VI. VII.	71, 114, 98 198, 675, 10 80, 915, 17 77, 772, 87 53, 664, 62 150, 886, 04 15, 822, 55 67, 358, 68	590, 972, 73 356, 976, 02 29, 044, 24 47, 060, 74 350, 957, 89 147, 390, 05 182, 845, 90	11, 102, 707, 26 6, 084, 382, 96 1, 391, 618, 64 2, 770, 070, 96 8, 122, 703, 04 1, 293, 176, 75 3, 418, 359, 99	54, 037, 70 17, 923, 74 6, 608, 16 17, 837, 92 27, 111, 66 2, 874, 07 3, 831, 11		
VI	71, 114, 98 198, 675, 10 80, 915, 17 77, 772, 87 53, 664, 62 150, 885, 04 15, 822, 55 67, 338, 68 24, 772, 90	590, 972, 73 356, 976, 02 29, 044, 24 47, 069, 74 350, 957, 89 147, 390, 05 182, 845, 90 101, 816, 20	11, 102, 707, 26 6, 084, 382, 96 1, 391, 618, 64 2, 770, 070, 96 8, 122, 703, 04 1, 293, 176, 75 3, 418, 359, 99 1, 361, 280, 02	54, 037, 70 17, 923, 74 6, 608, 11 17, 837, 92 27, 111, 65 2, 374, 07 3, 831, 11 2, 754, 90		
VI. VII. VIIII. VIII. VIII. VIII. VIII. VIIII. VIIII. VIIII. VIII. VIII. VIIII. VIII. VIII. VIII. VIII. VIII	71, 114, 98 198, 675, 190 80, 915, 17 77, 772, 87 53, 664, 62 150, 886, 04 15, 822, 55 67, 358, 68 24, 772, 90 19, 046, 12	590, 972, 73 356, 970, 02 29, 044, 24 47, 069, 74 350, 957, 89 147, 390, 05 182, 845, 90 101, 816, 20 314, 115, 86	11, 102, 707, 26 6, 084, 382, 96 1, 391, 618, 64 2, 770, 070, 96 8, 122, 703, 04 1, 293, 176, 75 3, 418, 359, 99 1, 361, 280, 02 1, 780, 168, 85	54, 037, 70 17, 923, 74 6, 608, 16 17, 837, 93 27, 111, 66 2, 874, 07 3, 831, 1: 2, 754, 90 5, 030, 36		
VI. VII. VIII. VIII. VIII. VIX. X	71, 114, 98 198, 675, 190 80, 915, 17 77, 772, 87 53, 664, 62 150, 886, 04 15, 822, 55 67, 358, 68 24, 772, 90 19, 046, 12	590, 972, 73 356, 970, 02 29, 044, 24 47, 069, 74 350, 957, 89 147, 390, 05 182, 845, 90 101, 816, 20 314, 115, 86	11, 102, 707, 26 6, 084, 382, 96 1, 391, 618, 64 2, 770, 070, 96 8, 122, 703, 04 1, 293, 176, 75 3, 418, 359, 99 1, 361, 280, 02	54, 037, 7(17, 923, 74 6, 608, 14 17, 837, 92 27, 111, 66 2, 874, 07 3, 831, 12 2, 754, 90 5, 030, 36		
VI	71, 114, 98 198, 675, 190 80, 915, 17 77, 772, 87 53, 664, 62 150, 886, 04 15, 822, 55 67, 358, 68 24, 772, 90 19, 046, 12	590, 972, 73 356, 970, 02 29, 044, 24 47, 069, 74 350, 957, 89 147, 390, 05 182, 845, 90 101, 816, 20 314, 115, 86	11, 102, 707, 26 6, 084, 382, 96 1, 391, 618, 64 2, 770, 070, 96 8, 122, 703, 04 1, 293, 176, 75 3, 418, 359, 99 1, 361, 280, 02 1, 780, 168, 85	54, 037, 70 17, 923, 74 6, 608, 16 17, 837, 93 27, 111, 66 2, 874, 07 3, 831, 1: 2, 754, 90 5, 030, 36		

TABLE 6.—BUSINESS DONE BY EXPRESS COMPANIES DURING THE YEAR ENDING JUNE 30, 1890.

PART 1.-BY COMPANIES IN EACH GROUP. (a)

COMPANIES.	Number of freight way- bills issued.	Number of packages car- ried on freight waybills.	Weight of packages car- ried on freight way bills. (Tons).	Number of money way bills issued.	Number of packages car- ried on money waybills.	Number of money orders issued.
Total for United States		98, 118, 430	1, 646, 273	11. 614, 676	17, 258, 682	4, 598, 567
Group I	4, 700, 815	11, 250, 034	235, 932	1, 039, 366	1, 895, 928	142, 383
Adams Express Company American Express Company	1, 353, 640	3, 106, 653	38, 833	278, 114	486, 000	
Dominion Express Company Earle & Prew's Express	10, 260 114, 000	4, 072, 288 21, 936 1, 930, 000	151, 795 294 19, 110	552, 165 10, 020 48, 000	784, 074 13, 836 288, 000	132, 650
National Express Company New England Despatch Express Company New York and Boston Despatch Express Company United States Express Company	90, 224 25, 000 224, 672 255, 736	174, 133 75, 000 1, 349, 160 520, 864	4, 325 1, 375 13, 957 6, 243	18, 714 3, 344 60, 977 68, 032	30, 316 9, 500 179, 410 104, 792	9, 733
Group II	11, 125, 713	24, 325, 360	413,090	2, 471. 826	3, 462, 415	422, 034
Adams Express Company American Express Company Canadan and Atlantic Express Company (b)	4, 036, 470 3, 226, 996	9, 741, 149 5, 001, 843	122, 775 120, 180	914, 401 680, 348	1, 415, 904 966, 094	225, 101
Camden and Atlantic Express Company (b) Long Island Express Company	419, 072	1, 079, 879	. 12, 298	37, 610	48, 243	
National Express Company United States Express Company Wells, Fargo & Co.'s Express West Jersey Express Company (b)	516, 533 2, 322, 676 603; 966	996, 908 5, 089, 720 2, 415, 861	24, 044 108, 727 25, 066	109, 568 588, 228 141, 671	177, 510 642, 152 212, 512	138, 764 58, 169
Group III	7, 069, 230	13, 137, 149	254, 481	1. 832, 769	2, 439, 067	785, 788
Adams Express Company American Express Company Cincinnati, Georgetown and Portsmouth Express Company (c)	2, 172, 328 2, 237, 540	3, 583, 394 3, 266, 808	58, 805 113, 044 500	510, 183 627, 100	722, 700 865, 398	511, 067
Pacific Express Company United States Express Company Wells, Fargo & Co.'s Express	77, 825 1, 889, 060 692, 477	143, 198 3, 073, 840 2, 769, 909	2, 092 51, 301 28, 739	31, 633 501, 420 162, 433	43, 569 563, 744 243, 656	9, 331 219, 405 45, 985
Group IV	1, 177, 715	2, 855, 018	30, 800	278, 009	419, 858	8, 703
Adams Express Company Southern Express Company United States Express Company	550, 427 396, 620 230, 668	1, 328, 338 1, 032, 996 493, 684	16, 225 3, 302 11, 273	124, 691 68, 382 84, 936	192, 096 133, 526 94, 236	8, 793
Group V	2, 629, 090	7, 307, 424	71, 765	790, 205	1, 640, 598	63, 032
Adams Express Company Pacific Express Company Southern Express Company United States Express Company	630, 676 121, 102 1, 639, 876 237, 436	1, 365, 465 222, 827 4, 995, 488 723, 644	19, 602 3, 256 38, 085 10, 822	170, 007 49, 224 473, 286 97, 688	240, 900 67, 798 688, 480 643, 420	13, 960
Group VI	9, 258, 576	14, 715, 137	348, 455	2, 688, 391	3, 765, 553	1, 598, 875
Adams Express Company American Express Company Pacific Express Company	1, 214, 636 4, 748, 767 737, 848	2, 129, 589 6, 933, 199 1, 321, 641	33, 917 184, 281 19, 083	294, 862 1, 329, 965 297, 325	384, 060 1, 835, 351 390, 142	1, 245, 546 41, 990
Southern Express Company United States Express Company Wells, Fargo & Co.'s Express.	62, 532 2, 276, 116 218, 677	96, 936 3, 359, 064 874, 708	2, 144 90, 955 9, 075	32, 100 682, 844 51, 295	113, 820 956, 236 76, 944	297, 662 13, 677
Group VII	1, 171, 144	3, 822, 688	42, 817	356, 277	516, 077	155, 322
American Express Company Pacific Express Company Wells, Fargo & Co.'s Express	65, 270 319, 679 786, 195	95, 294 582, 610 3. 144, 784	1, 293 8, 896 32, 628	36, 886 134, 975 184, 416	50, 902 188, 543 276, 632	9, 161 60, 652 85, 506
Group VIII	3, 485, 217	8, 239, 117	116, 273	1, 163, 166	1, 638, 574	454, 633
Adams Express Company Denver and Rio Grande Express	654, 035 198 / 252	1, 251, 316 513, 300	18, 295 15, 011	158, 730 56, 616	208, 818 89, 608	36, 55
Pacific Express Company	104, 160	2, 838, 537 233, 988	41, 475 3, 000	627, 054 43, 080	863, 656 64, 320	195, 955
United States Express Company Wells, Fargo & Co.'s Express	277, 990 708, 097	569, 588 2, 832, 388	9, 105 29, 387	111, 588 166, 098	163, 020 249, 152	77, 930 144, 186
Group IX	1, 291, 335	3, 572, 779	43, 303	443, 644	649, 024	141, 855
Pacific Express Company Southern Express Company United States Express Company Wells, Fargo & Co. s Express	717, 155 33, 508 20, 012 520, 660	1, 319, 565 144, 168 26, 408 2, 082, 638	19, 281 1, 953 461 21, 608	291, 502 16, 380 13, 632 122, 130	401, 492 48, 900 15, 432 183, 200	88, 646 4, 190 49, 019
Group X	1, 796, 893	6, 969, 224	73. 268	439, 747	661, 668	647, 508
Pacific Express Company		263, 128 6, 706, 096	3, 689 69, 579	46, 490 393, 257	71, 764 589, 901	46, 656 600, 85
Not divided by groups (Northern Pacific Express Company)	769, 800	1, 924, 500	16, 089	111, 276	169, 920	178, 34

a Two express companies did not report because they were merely departments of railroad companies bearing same name. b Returns included in report of railway company of which the express company is a department. c Partial report, the express company being a department of the railroad whose name it bears.

TABLE 6.-BUSINESS DONE BY EXPRESS COMPANIES DURING THE YEAR ENDING JUNE 30, 1890-Continued.

PART 2.—BY COMPANY TOTALS. (a)

COMPANIES AND GROUPS.	Number of freight way- bills issued.	Number of packages car- ried on freight waybills.	Weight of packages car- ried on freight waybills. (Tons.)	Number of money way- bills isswed.	Number of packages carried on money way bills.	Number of money orders issued.
Total for United States	44, 475, 528	98, 118, 430	1, 646, 273	11, 614, 676	17, 258, 682	4, 598, 567
Adams Express Company	12, 905, 856	22, 805, 904 19, 369, 432	306, 452 570, 59 3	2, 450, 988 3, 226, 464	3, 650, 478 4, 501, 819	2, 123, 525
Cincinnati, Georgetown and Portsmouth Express Company (c) Denver and Rio Grande Express		513, 300	500 15, 011	56, 616	89, 608	36, 553
Dominion Express Company. Earle & Prews Express Long Island Express Company. National Express Company.	10, 260 114, 000 419, 072 606, 757	21, 936 1, 930, 000 1, 079, 879 1, 171, 041	294 19, 110 12, 298 28, 309	10, 020 48, 000 37, 610 128, 282	13, 836 288, 000 48, 243 207, 826	
New England Despatch Express Company New York and Boston Despatch Express Company Northern Pacific Express Company Pacific Express Company	25, 000 224, 672 769, 800 3, 636, 661	75, 000 1, 349, 160 1, 924, 500 6, 691, 506	1, 375 13, 957 16, 089 97, 772	3, 344 60, 977 111, 276 1, 478, 203	9, 500 179, 410 169, 920 2, 035, 964	178, 344 457, 196
Southern Express Company United States Express Company Wells, Fargo & Co.'s Express West Jersey Express Company (b)	7, 509, 694 5, 206, 596	6, 503, 576 13, 856, 812 20, 826, 384	48, 484 297, 887 216, 082	633, 228 2, 148, 368 1, 221, 300	1, 049, 046 3, 183, 032 1, 832, 000	805, 552 997, 397

PART 3.-BY GROUP TOTALS. (a)

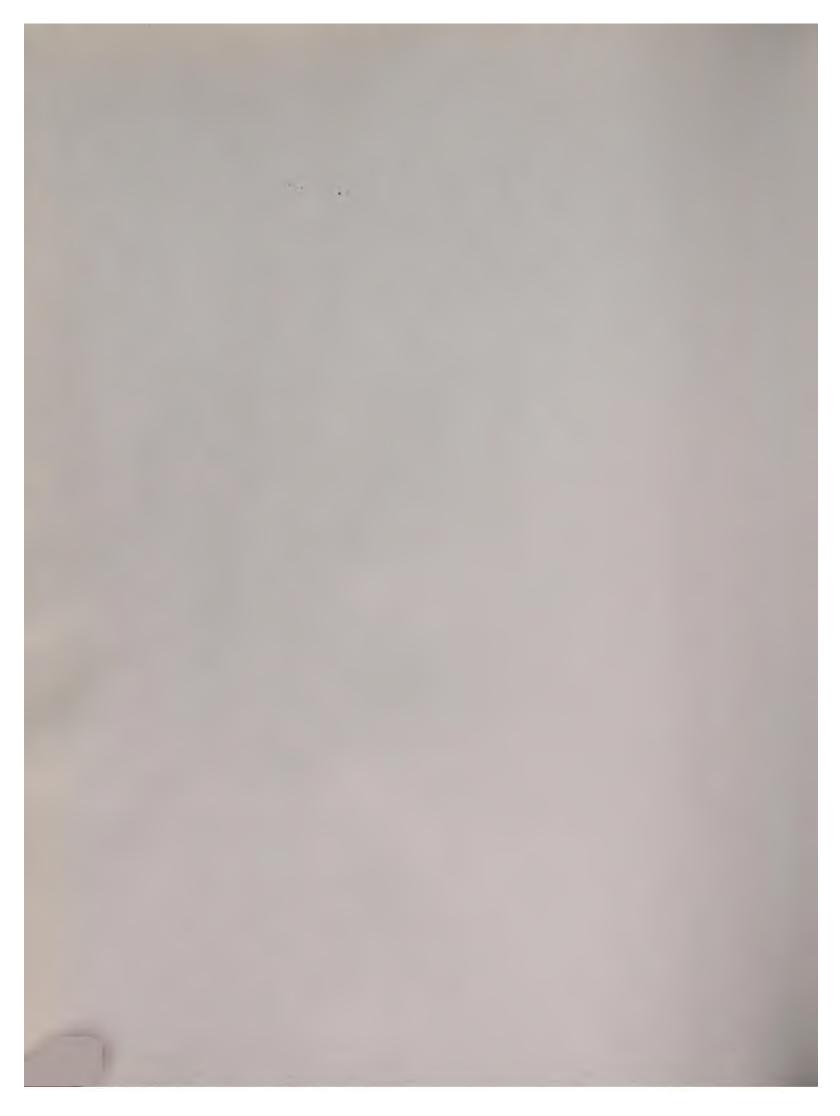
Total for United States	44, 475, 528	98, 118, 430	1, 646, 273	11, 614, 676	17. 258, 682	4, 598, 567
				· ·	···	
Group I	4, 700, 815	11, 250, 034	235, 932	1, 039, 366	1, 895, 928	ئد 3 .142 142
II	11, 125, 713	24, 325, 360	413, 090	2, 471, 826	3, 462, 415	422, 034
III	7, 069, 230	13, 137, 149	254, 481	1, 832, 769	2, 439, 067	785, 788
IV	1, 177, 715	2, 855, 018	30, 800	278, 009	419, 858	8, 793
Vi	2, 629, 090	7, 307, 424	71, 765	790, 205	1, 640, 598	63, 032
			·			
VI	9, 258, 576	14, 715, 137	348, 455	2, 688, 391	3, 765, 553	1,598,875
VII	1, 171, 144	3, 822, 688	42, 817	356, 277	516, 077	155, 322
VIII	3, 485, 217	8, 239, 117	116, 273	1, 163, 166	1, 638, 574	454, 633
IX	1, 291, 335	3, 572, 779	43, 303	443, 644	649, 024	141, 855
X	1, 796, 893	6, 969, 224	73, 268	439, 747	661, 668	647, 508
		· · ·		, i	·	
Not divided by groups (Northern Pacific Express Company)	769, 800	1, 924, 500	16, 089	111, 276	169, 920	178, 344
	. 1	,	1	1	· (

a Totals given are for 15 companies, of which 1 is only a partial report. b Returns included in report of railway company of which the express company is a department c Partial report, the express company being a department of the railroad whose name it bears.









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